Commercial Fisheries Abstracts

a monthly summary of important developments for the fishery industries

Triennial Index

1951 - 1953

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JOHN L. FARLEY, Director

Commercial Fisheries Abstracts

Prepared in the Branch of Commercial Fisheries

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The abstracts in this leaflet may be left in their present form; but it is suggested that to make the most efficient use of them, they be cut out on the lines designated and filed by the number in the upper left-hand corner of each. For a full description of this filing system see "Fishery Technological Abstract Card System" by Maurice E. Stansby and K. L. Osterhaug, Fishery Leaflet No. 232, obtainable free by request from Fish and Wildlife Service, Washington 25, D. C.

In addition to the regular abstracts, there is included a bibliography of references of secondary importance (without abstracts). These may be cut off on the lines designated and pasted on standard 3 x 5-inch cards for filing.

Following is a brief outline of this filing system. The numbers apply to the first digit appearing on each card. For the meaning of subsequent digits, please see the above described leaflet.

0	General and theoretical	5	Vitamins
1	Fish by species	6	Fishery byproducts
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Issued with the approval of the Bureau of the Budget, December 29, 1953

TRIENNIAL INDEX OF COMMERCIAL FISHERIES ABSTRACTS

1951 - 1953

Compiled by M. E. Stansby 1/ and Marjorie Zachow 2/

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INTRODUCTION

This second triennial index of Commercial Fisheries Abstracts has been prepared along the same lines as the first such index which covered the period 1948 - 1950. These triennial indices are intended primarily for those users of Commercial Fisheries Abstracts who do not cut and file the abstract cards. They also serve as subject and author bibliographies of fishery technology.

The author index lists the abstracts alphabetically according to author with no distinction made as to junior or senior authors. Following the author's name is given the date of the issue and page number of Commercial Fisheries Abstracts in which the abstract appeared and the subject code number. These code numbers are described in another publication 3/.

The subject index is arranged according to the main subject headings listed below. In most cases these main subject headings are subdivided by means of suitable subheadings. Abstracts under each heading are listed by title, and the month, year, and page of the issue of Commercial Fisheries Abstracts are given in that order under each title.

1/ Chief, Pacific Coast and Alaska Technological Research, and Associate Editor, COMMERCIAL FISHERIES ABSTRACTS.

2/ Clerk-typist, Educational and Market Development Section, Seattle, Washington.

3/ Stansby, M. E. and Osterhaug, K. L. 1950 Fishery Technological Abstract Card System, U. S. Dept. of the Interior, Fish and Wildlife Service, Fishery Leaflet 232, 20 pp. (Mimeo).

MAIN SUBJECT CLASSIFICATIONS FOR INDEXING COMMERCIAL FISHERIES ABSTRACTS

African Fisheries
Analysis, General
Analysis, Inorganic
Analysis, Moisture
Analysis, Organic
Analysis, Vitamins, Vitamin A
Analysis, Vitamins, B-Complex
Analysis, Vitamins, Miscellaneous
Analysis and Composition, Specifications and Oil Constants
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These main subject classifications are used not only in this triennial index but they have now been standardized upon for use in the brief monthly index which appears at the end of each issue. In addition to the main subject classifications, numerous cross references are listed in this index to facilitate finding material for which the user might look in more than one place. The cross-reference listings do not include any specific references to titles but merely refer the reader to the proper main classification (and sometimes subheading) under which the material will be found. Subheading listings in these cross references are separated from the main headings by a dash. For example a cross reference is listed as follows:

"Abalone (see SHELLFISH AND CRUSTACEANS, MISCELLANEOUS - Abalone)." This means that articles on the subject of Abalone are to be found in the alphabetical subject index under "SHELLFISH AND CRUSTACEANS, MISCELLANEOUS" and under the subheading of this listing of "Abalone."

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Dunn, H. J.	Sept. 51	1	6.15
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Dunning, John W.	Mar. 51	3	6.133
Dupras, Charles A.	Nov. 52	5	6.89
Dussault, H. P.	Mar. 51	13	3.18
_____	Feb. 53	11	0.5
_____	July 53	13	3.5
_____	July 53	17	3.5
Dyer, Frances E.	June 52	19	7.81
_____	Sept. 52	19	0.5
Dyer, W. J.	May 52	7	3.249
_____	June 52	19	7.81
_____	July 52	7	7.51
_____	July 52	9	8.59
_____	July 52	19	2.00
_____	June 53	19	7.81
Dykstra, K. G.	Jan. 51	3	3.18
_____	June 52	3	3.238
_____	Dec. 53	7	3.26
Dymond, J. R.	Jan. 53	11	0.6
Easterling, Leslie	April 53	5	6.195
Eddie, G. C.	Jan. 51	7	3.234
	Oct. 53	7	3.231
Eddy, B. P.	Dec. 52	19	2.01
Ede, A. J.	July 51	13	0.6
	Jan. 53	3	3.234
Eden, E.	Feb. 51	5	5.111
	Feb. 51	23	5.122
Edwards, H. M.	Aug. 53	1	6.193
Edwards, Windy	May 52	15	2.1121
Ehrenberg, A. S. C.	Sept. 53	9	7.80
	Oct. 53	11	7.80
El Baradi, Abdel Fattah	Sept. 51	3	7.80
Elder, John W.	Feb. 52	17	3.18
Elder, L. W.	Jan. 51	15	7.80
Ellenberger, Herman A.	Sept. 51	7	7.61
Elliott, Henry H.	Aug. 51	1	3.33
Elliott, R. Paul	Sept. 52	15	2.01
Ellson, J. G.	Jan. 51	11	2.117
_____	Sept. 52	1	2.12
_____	July 53	15	2.1129
El Rawi, Ihsan	Sept. 52	9	3.39
Elvehjem, C. A.	Feb. 51	11	5.41
_____	Jan. 52	9	5.41
_____	Jan. 52	17	4.92
Elving, P. J.	Feb. 51	25	7.50
Ely, C. M.	Mar. 52	11	0.7
Emerson, Dean	April 52	11	2.114
Emery, W. B.	July 51	1	7.641
Emmerie, A.	Oct. 52	3	4.99
Emmons, A. H.	Dec. 53	13	7.41
Empey, W. A.	Mar. 52	1	3.239
	Oct. 52	5	1.016
_____	Dec. 52	11	3.33
_____	Jan. 53	11	1.0146
_____	Feb. 53	11	1.0146
_____	Feb. 53	15	3.33
_____	Feb. 53	15	3.4
_____	May 53	13	1.0140
_____	May 53	15	3.230
_____	May 53	17	3.7
_____	May 53	19	3.4
_____	Aug. 53	5	3.33
_____	Aug. 53	7	3.33
_____	Aug. 53	11	3.33
_____	Aug. 53	11	3.8
_____	Dec. 53	13	6.130
Endo, Eiichi	Sept. 53	7	2.00
Engel, Chr.	Oct. 52	3	4.99
Ericson, L. E.	Nov. 52	11	8.64
Esposito, Raymond G.	July 52	7	7.641
Esselen, W. B. Jr.	Jan. 51	1	0.6
Evans, Ralph L.	June 52	15	7.80
Evans, Robert John	Feb. 52	5	6.139
Evans, W. C.	June 52	5	5.2
Fagerlund, U. F. M.	Dec. 53	5	8.59
Fagerson, I. S.	Jan. 51	1	0.6
	Jan. 53	17	3.230
Fantes, K. H.	Mar. 51	17	7.641
Farber, Lionel	Dec. 52	1	8.8
Farkas, Lillian D.	Feb. 53	7	4.61
Farmer, E. H.	Mar. 52	19	4.11
Farrar, K. R.	June 51	7	5.111
Farwell, George	Jan. 53	19	1.017
Feeney, R. J.	Oct. 53	1	6.193
Fellers, Carl R.	Jan. 53	17	3.230
	Mar. 53	15	8.59
Fenrich, E. G.	Sept. 52	11	3.18
Feuell, A. J.	Aug. 53	1	7.879
Fieger, E. A.	Jan. 51	5	1.85
	May 51	11	2.00
_____	June 51	3	3.249
_____	Sept. 52	13	2.00
_____	Jan. 53	5	2.00
_____	Feb. 53	9	3.4
_____	Aug. 53	3	3.239
Field, Crosby	Nov. 53	13	2.08
Finnegan, W. J.	Jan. 51	19	3.234
Fitzgerald, Gerald A.	Jan. 51	7	3.26
Flynn, Laura M.	June 51	7	7.64
Folkers, Karl	Feb. 51	11	7.641
Fore, Sara P.	May 51	3	7.871

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Forsander, O.	Sept. 52	5	5.2
Fougere, H.	July 52	19	3.5
———	Aug. 52	1	3.5
———	April 53	7	3.5
Fowden, L.	May 52	15	8.51
Fox, D. L.	Sept. 53	3	0.34
Fox, Sereck	Mar. 51	9	7.6132
Fox, Sidney W.	Feb. 51	11	7.6131
Frank, M.	Aug. 52	9	2.05
Frazer, Dorothy	Oct. 52	13	8.42
Frazier, L. E.	July 53	3	6.139
French, H. V.	Sept. 51	3	3.4
Freyer, Egbert	Oct. 51	11	4.2
Fricke, Howard H.	June 53	1	7.641
Fridriksdottir, Sigrun	Nov. 53	17	7.874
Frilox, James J.	Aug. 53	3	3.239
Fritz, James C.	Feb. 51	23	6.190
———	July 51	3	6.190
Frost, Douglas V.	Nov. 52	5	5.41
———	June 53	1	7.641
———	June 53	17	0.7
Frost, L. J.	June 51	17	3.33
Fryd, C. F. M.	May 51	1	7.43
Fuller, H. L.	Sept. 52	17	5.41
Furukawa, A.	Feb. 52	19	9.14
Gaddis, A. M.	Oct. 51	5	3.238
Gane, R.	Jan. 52	17	3.61
———	Jan. 53	3	3.234
Gardner, R. G.	Sept. 53	5	6.3
Garfield, Morton J.	Sept. 52	15	2.6
Garton, G. A.	June 52	15	4.91
Geiger, E.	Sept. 52	9	3.39
Gemmill, Arthur V.	Mar. 51	3	6.131
———	Sept. 52	5	4.64
Gerhardsen, G. M.	Aug. 52	17	9.2
Getty, J.	Jan. 51	21	7.641
Gibbons, N. E.	Mar. 51	15	2.02
———	Aug. 52	9	2.01
Gilmore, Raymond M.	Aug. 53	15	1.95
Girardot, Norman F.	July 52	5	7.80
———	Nov. 52	1	7.80
Glanville, Alan	Dec. 53	17	2.1121
Glover, Mary	May 52	11	8.59
Gloyer, Stewart W.	Mar. 51	13	4.3
Godden, W.	Mar. 51	9	6.190
Goldblith, Samuel A.	Dec. 51	13	3.19
———	June 52	9	3.19
Goldfarb, A. Robert	Sept. 51	19	7.2
———	Oct. 51	17	0.32
Goodwin, T. W.	Jan. 51	21	0.39
Graikoski, J. T.	Mar. 53	15	3.19
Granberg, W. J.	July 51	5	3.33
Grant, G. A.	Aug. 53	19	7.87
Grau, C. R.	Oct. 52	7	6.195
Gray, D. J. S.	May 51	17	6.233
———	Mar. 52	3	6.15
———	Mar. 52	13	1.95

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Green, J.	Mar. 52	15	7.66
Green, N.	Mar. 51	17	7.641
Gregory, John M.	Jan. 51	23	9.17
———	Feb. 51	21	2.118
———	July 51	15	6.1
Grewe, F. J.	Jan. 52	15	2.00
Gridgeman, N. T.	Nov. 51	9	7.611
Guerrant, N. B.	Sept. 51	7	7.61
Gunnarsson, G. K.	Feb. 53	5	2.114
Gutkin, S. S.	Feb. 51	19	4.89
Guttmann, A.	Mar. 53	9	7.641
Haddow, R. R.	July 51	13	0.6
Hafeli, John M.	Feb. 51	5	4.83
Hagevig, W. H.	Jan. 51	5	6.0
Haggerty, J. F.	May 52	15	5.41
———	June 52	1	7.641
Hall, Lloyd A.	May 51	11	4.64
Halstead, Bruce W.	July 53	1	2.9
Hamano, Shigeru	Oct. 52	3	4.19
Hamm, William S.	June 51	3	8.7
Hamoir, G.	April 52	9	7.51
———	July 52	11	7.51
———	June 53	5	7.51
Hanaoka, T.	Feb. 52	19	9.14
Hanson, Helen L.	April 52	17	4.64
Hankins, O. G.	Oct, 51	5	3.238
Hardwick, P. J.	April 52	1	6.73
Hardy, Eric	Mar. 53	11	9.16
Hargrove, Robert E.	Feb. 53	7	5.41
Harkin, Alice M.	Oct. 53	13	6.190
Harris, Philip L.	Sept. 52	3	5.126
Harrison, Eleanor	April 52	7	7.641
Harrison, G. F.	Jan. 51	21	7.641
———	July 51	7	7.641
Harrison, J. S. M.	May 51	15	6.132
———	Aug. 51	5	3.5
———	Nov. 52	13	3.33
———	July 53	5	3.234
Harrison, Roger	Nov. 51	1	6.2
Harrison, S.	Jan. 51	15	7.80
Harte, Walter H.	Sept. 52	13	3.7
Hartshorne, Jean C.	Mar. 52	13	3.230
———	July 52	17	3.230
———	May 53	7	3.234
Hartwell, R. R.	Dec. 51	15	3.338
Harvey, Edward W.	Aug. 51	1	3.33
———	Jan. 52	15	2.8
———	Nov. 53	3	2.19
———	Nov. 53	9	2.19
Hashimoto, Yoshiro	Aug. 52	15	2.9
———	Nov. 53	17	8.64
———	Nov. 53	19	8.64
Hastings, W. H.	May 51	3	6.1
———	Sept. 51	11	6.190
———	May 53	19	8.65
———	Dec. 53	19	4.61
Hauge, S. M.	Sept. 52	17	5.41

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Havighorst, C. R.	April 51	13	3.234
Haxo, F. T.	Sept. 53	3	0.34
Heerdt, Martin Jr.	May 53	3	3.230
Hegazi, M.	June 53	11	1.016
Heiss, Rudolf	Oct. 51	11	0.6
Hendlin, David	June 51	7	7.641
Hendrixson, M. W.	Sept. 51	1	6.190
Henick, A. S.	Aug. 51	7	7.53
Hennessy, Douglas J.	June 52	9	5.2
Henrotte, J. G.	Sept. 52	1	8.51
Henry, Norma Scott	Jan. 51	19	8.64
Herion, A.	Sept. 53	1	3.239
Herklots, G. A. C.	May 53	13	1.015
Hess, Ernest	Mar. 51	11	2.19
———	Aug. 52	9	2.05
———	May 53	15	3.5
Hess, Eugene L.	Sept. 51	7	0.32
Hess, S. M.	Feb. 51	3	7.82
Heuser, G. F.	Aug. 53	1	6.193
Hibiki, Sigeyuki	Mar. 53	1	0.32
Higashi, Hideo	April 52	9	8.64
———	Feb. 53	21	2.06
———	June 53	7	2.01
	Nov. 53	19	8.6177
High, Edward G.	June 51	15	5.124
Hightower, J. V.	Oct. 51	9	6.135
Hilditch, T. P.	June 52	15	4.91
Hill, D. C.	May 53	9	6.193
Hill, F. W.	Aug. 51	3	6.192
Hiner, R. L.	Oct. 51	5	3.238
Hirai, H.	April 52	9	8.64
Hirao, Shuichi	April 53	7	4.1
	Nov. 53	19	8.6177
Hjorth-Hansen, Sverre	Aug. 52	5	7.81
Hoar, William S.	May 52	9	1.0111
———	June 52	1	9.13
———	Sept. 52	7	4.99
Hodgkiss, W.	Dec. 51	15	9.15
Hoie, J.	June 53	15	6.190
Holder, Ralph C.	Jan. 51	11	6.190
———	May 51	3	6.192
———	Aug. 51	3	6.190
———	Oct. 51	9	6.190
———	Dec. 51	5	6.190
———	Aug. 52	11	7.641
———	June 53	15	6.190
———	Sept. 53	5	6.190
Holston, John A.	Nov. 52	13	3.239
———	April 53	17	3.234
———	Aug. 53	3	3.231
Honn, F. J.	June 51	19	4.21
Hoogland, P. L.	Feb. 53	17	5.41
	Aug. 53	1	8.64
Hoshimura, Katsuzi	Feb. 53	9	3.249
House, C. T.	April 51	13	1.87
Hovey, A. G.	Feb. 51	13	4.29
Howard, A.	Mar. 52	1	3.239
Howard, Gerald V.	May 53	1	9.12
Hoyer, H. G.	Dec. 53	3	2.8
Hoyer, W. H.	Mar. 51	9	8.64
Huber, W.	April 53	3	3.5
Huber, W.	April 53	3	4.20
Hughes, R. H.	July 53	3	6.139
Humphrey, Harold J.	Feb. 51	21	2.01
———	April 51	13	3.23
Huntley, J. G. H.	July 51	11	3.33
Hussemann, Dorothy L.	Jan. 52	3	2.01
Hustrulid, Andrew	Oct. 51	13	3.238
———	Nov. 52	3	3.249
Hutchings, B. L.	May 51	9	5.41
Hyde, K. A.	April 52	9	7.43
Hylton, P. H.	July 52	15	1.0148
Iacobellis, M.	Aug. 52	3	0.33
Ide, Katsumi	May 53	13	7.81
———	July 53	3	7.89
Idler, D. R.	Dec. 53	5	8.59
———	Dec. 53	11	2.0
Igarashi, Hisanao	Nov. 53	19	8.7
Ingram, G. C.	Dec. 52	19	2.01
Ireland, D. M.	Mar. 51	17	7.641
Isbell, Jack	Oct. 52	15	3.238
Ishigaki, Akira	Nov. 53	19	8.7
Ishikawa, Seiichi	May 52	11	4.14
———	June 52	7	7.611
Ishikawa, Yasutaro	Feb. 52	11	7.591
Ison, H. C. K.	Oct. 53	5	2.113
Jackson, D. E.	Feb. 51	25	7.50
Jackson, J. A.	Jan. 52	7	3.33
———	April 53	3	3.5
Jarvis, Norman D.	May 51	5	3.0
———	May 52	17	3.33
Jauve, G.	Nov. 53	11	4.60
Jebsen, J. W.	May 53	5	6.139
Jones, G. Ivor	Feb. 51	19	6.9
———	Mar. 51	9	8.64
Jones, N. R.	June 52	5	5.2
Johnson, J. A.	Sept. 51	17	0.38
Johnson, O. C.	June 51	17	3.33
Jonnson, Hordur	Feb. 53	3	6.23
Jul, Mogens	June 52	7	3.30
———	July 52	3	3.33
———	June 53	3	3.230
Kaap, Lawrence	Mar. 52	1	3.33
Kaczka, Edward A.	Feb. 51	11	7.641
Kahan, Sidney	Sept. 52	13	4.66
Kahn, Richard A.	Sept. 53	19	3.26
Kalt, Wallace B.	Sept. 51	19	7.2
Kaneda, Takashi	April 53	15	4.13
Kaneko, Aiji	July 52	9	8.7
Kanno, Hideo	May 52	11	4.14
Kantor, Max	Mar. 51	13	6.137
Kaunitz, Hans	Feb. 51	23	5.119
———	May 51	15	5.126

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Kavanaugh, Mary T.	Dec. 51	11	2.6
Kelai Ditis, G.	Feb. 51	17	3.5
Kelley, E. G.	Sept. 51	9	5.112
Kelley, Patricia H.	June 52	17	7.80
Kennedy, Frank A.	Jan. 53	13	4.90
Kennedy, W. A.	April 52	3	2.14
Kenyon, Keith	July 52	11	7.43
Kenyon, Richard L.	Jan. 53	17	3.234
Kermack, W. O.	Oct. 52	13	8.42
Kersey, R. C.	Oct. 53	1	6.193
Ketchen, K. S.	Sept. 52	3	2.14
	Jan. 53	15	2.1121
Khan, M. M. R.	May 53	5	7.591
Khanna, M. L.	Feb. 53	11	1.015
Kidd, F.	Oct. 51	15	1.0146
Kikuchi, Ryo	Nov. 53	19	8.6177
Kikuchi, Takeshi	Feb. 52	17	8.42
	Nov. 52	17	8.7
Kimura, Keiichi	Nov. 53	17	3.30
Kincaid, Trevor	Dec. 51	11	1.81
Kinloch, James	Nov. 51	19	1.84
Kinumaki, Toyosuke	April 53	7	4.1
Kittredge, J. S.	Sept. 53	3	0.34
Klebsattel, C. A.	April 51	7	4.83
Klein, Marian	Mar. 53	17	3.238
Kline, O. L.	June 51	1	7.641
_____	May 52	15	5.41
_____	June 52	1	7.641
Klip, W.	Oct. 52	3	4.99
Klocke, Jessie F.	Jan. 51	19	8.64
Klose, A. A.	Nov. 51	7	6.199
_____	July 53	5	4.91
Klotz, H.	Feb. 52	9	2.114
Klungsoyr, M.	June 53	9	8.64
	Sept. 53	5	6.139
Knake, B. O.	July 52	17	3.231
Knapp, Ruth M.	Mar. 51	3	4.64
Knott, F. A.	May 53	19	7.85
Knox, Peter	Feb. 53	15	3.30
	Nov. 53	15	1.017
Kobayashi, Shinjiro	Nov. 52	15	9.16
Kodicek, E.	Mar. 51	17	7.66
Kohn-Abrest, E.	Aug. 53	9	7.45
Kolthoff, I. M.	June 51	19	7.872
Kon, S. K.	Jan. 51	21	7.641
	July 51	7	7.641
Konen, J. C.	Feb. 51	15	4.11
Konigsbacker, Kurt S.	June 52	15	7.80
Kordyl, E.	Sept. 53	19	8.50
Koshevin, N.	Nov. 52	1	3.231
Kratzer, F. H.	July 53	5	4.91
Kreuzer, R.	Nov. 53	7	3.17
Krieger, Carl H.	Dec. 52	7	7.641
Krishnamurthy, C. G.	July 52	9	8.53
Kristjanson, Svava	Mar. 52	3	6.72
Kristjonsson, H.	April 53	7	2.116
Krumholz, Louis A.	Dec. 53	13	7.41
Kubo, Shuichiro	Feb. 53	9	3.249
Kuchel, C. C.	Sept. 52	17	7.84
Kuehl, F. A. Jr.	Feb. 51	11	7.641
Kuhn, Gil	April 51	5	1.85

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Lacey, J. J.	Jan. 51	23	6.190
Lachance, R. A.	Feb. 53	11	0.5
LaCoste, Dick	Feb. 51	7	2.6
_____	Feb. 51	13	6.13
Laing, G.	Aug. 51	19	2.114
Laki, K.	June 52	5	0.32
Lalor, R. J.	Feb. 51	11	5.41
_____	Jan. 52	17	4.92
Lamb, Jessie C.	Sept. 52	19	6.199
Lambertsen, Georg	May 53	13	1.015
Landgraf, R. G. Jr.	July 52	13	6.51
	Dec. 53	17	8.50
Landrock, Arthur H.	Dec. 52	3	3.238
Lang, David A.	Nov. 51	13	8.64
Langdon, Robert G.	April 53	13	0.31
Lantz, A. W.	Mar. 51	19	3.12
_____	Oct. 51	19	3.33
_____	Feb. 52	5	6.131
_____	Feb. 52	7	7.80
_____	April 52	15	1.85
_____	April 52	17	2.6
_____	Mar. 53	9	7.80
_____	April 53	19	6.132
_____	Dec. 53	3	2.08
Larkin, Frances E.	July 51	1	7.641
Larsson, Karl-Hugo	April 53	11	2.1121
Lassen, Sven	Sept. 51	1	6.15
	Dec. 51	5	6.132
Laughland, D. H.	Sept. 52	11	7.611
	Oct. 52	1	7.611
Laurent, C. K.	June 53	15	6.195
Laurent, J.	Nov. 53	11	4.60
Lawrence, C. A.	Mar. 53	15	3.19
Lawrence, Ewing, Jr.	Aug. 51	11	2.116
Laws, E. Q.	April 52	1	6.73
Lea, C. H.	Mar. 52	9	4.5
	Oct. 52	15	4.64
Lederer, M.	Sept. 52	3	4.12
Lee, Charles F.	Aug. 52	5	6.130
	Sept. 52	5	1.2
Lee, Frank A.	April 51	19	3.249
Lees, H.	Aug. 52	3	0.33
	Oct. 52	13	8.42
Lees, K. A.	July 51	1	7.641
	April 52	7	7.641
Leffler, Edna	Jan. 51	19	8.64
Legendre, R.	Nov. 53	5	3.7
Lehmann, Barbara T.	Feb. 52	19	4.64
Lehr, -----	Dec. 53	3	2.01
Lemon, H. W.	Mar. 51	3	4.64
Lemon, James	July 51	17	9.6
	Dec. 52	5	3.230
Lentz, C. P.	Jan. 52	5	3.26
	April 53	17	3.26
Leoschke, W. L.	Jan. 52	17	4.92
le Roux, G. J.	Jan. 52	7	3.33
_____	Feb. 52	17	6.132
_____	April 53	1	3.238
_____	April 53	1	3.33
Lesser, Milton A.	Jan. 51	9	0.4
Leviton, Abraham	Feb. 53	7	5.41

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Lewis, A. M.	Feb. 52	17	6.132
_____	Mar. 53	17	6.54
_____	April 53	9	6.132
Lewis, Harvey	Feb. 53	9	3.4
Ligthelm, S. P.	May 53	9	4.13
Lillie, R. J.	April 53	9	6.192
Lindgren, B. E.	Aug. 53	5	2.8
Lineweaver, Hans	April 52	17	4.64
_____	July 53	5	4.91
Linko, R. R.	Aug. 53	11	4.62
Linton, E. P.	Sept. 51	3	3.4
Lips, H. J.	April 51	7	0.117
_____	Aug. 53	19	7.87
Little, Donald H.	Nov. 51	3	3.18
Livingstone, Robert Jr.	Aug. 52	3	2.12
_____	Sept. 52	1	2.12
Lloyd, Joan T.	July 51	1	7.641
Lockhart, Ernest E.	Dec. 51	19	7.80
Lovern, J. A.	Mar. 51	9	6.190
_____	Mar. 51	11	6.133
_____	Nov. 52	13	6.130
_____	Feb. 53	15	2.00
_____	Aug. 53	7	6.133
_____	Aug. 53	9	8.53
_____	Sept. 53	13	8.53
Lowry, J. R.	June 51	5	0.7
Loy, H. W. Jr.	June 51	1	7.641
_____	May 52	15	5.41
_____	June 52	1	7.641
Lucas, Edward R.	Mar. 51	1	1.5
Luckman, F. H.	May 52	19	7.610
_____	June 52	15	7.610
_____	Dec. 52	7	7.610
Ludwig, B. J.	July 52	19	6.3
Luijpen, A. F. M. G.	June 53	7	2.01
Lundberg, W. O.	July 53	11	4.21
Lunning, Margaret R.	Jan. 52	15	2.8
Luther, H. G.	Oct. 53	1	6.193
Lyderson, Aksel	April 52	5	3.234
MacCallum, W. A.	July 53	7	2.19
_____	July 53	15	2.114
_____	July 53	17	2.19
MacIntosh, Ruth G.	Sept. 53	9	7.80
Mackenzie, R. T.	Aug. 52	7	9.4
Mackintosh, David L.	Nov. 52	3	3.239
MacLeod, Robert A.	April 53	19	6.190
_____	Dec. 53	11	2.0
Maeda, Yasuhiko	Nov. 53	19	8.64
Magnusson, Harris W.	Jan. 51	5	6.0
_____	Jan. 51	25	2.9
_____	July 52	17	3.230
_____	Aug. 52	15	6.133
_____	Aug. 52	15	8.50
_____	Nov. 52	15	3.230
_____	May 53	7	3.234
Mahon, J. H.	Nov. 51	19	7.595
Makuta, Toyojiro	May 52	13	8.42
Mallard, T. M.	Jan. 52	1	0.117
Maltschewsky, N.	Aug. 53	15	2.01
Mapplebeck, E. G.	Oct. 52	9	3.18
_____	Mar. 53	3	2.01
_____	April 53	17	0.5
March, B. E.	April 52	7	6.139
_____	Nov. 52	17	6.134
_____	Dec. 52	1	6.190
_____	April 53	9	6.193
_____	July 53	3	6.193
Margetts, A. R.	Nov. 52	9	2.1121
Margolis, Leo	July 53	9	0.5
Marier, Guy	Aug. 51	13	5.0
Marks, R. H.	Jan. 52	15	2.00
Marquette, Mona M.	July 51	13	7.641
Marr, John C.	April 53	7	2.116
Marsden, Stanley J.	Sept. 52	19	6.199
_____	Oct. 53	13	6.190
Marsh, B. B.	Mar. 52	1	3.239
_____	Oct. 53	15	2.02
Mathur, S. S.	Mar. 53	5	4.15
Matsumoto, Koichi	Oct. 53	13	2.01
Matthews, L. Harrison	Aug. 52	13	2.14
Maurer, Stanley	June 52	1	8.59
Maxwell, B. E.	Feb. 53	1	8.64
May, Arthur E.	Dec. 53	5	9.4
McAleer, William J.	Jan. 52	11	6.3
McCabe, Louis C.	Mar. 52	15	6.135
McCleskey, C. S.	Nov. 51	11	2.05
_____	Feb. 52	7	7.86
McCollum, E. V.	Sept. 51	13	0.32
McCormack, Grace	Mar. 51	19	2.01
_____	Nov. 52	13	3.239
McCoy, Richard M.	Sept. 51	15	6.192
McGinnis, James	Jan. 51	21	0.7
_____	Feb. 51	23	6.192
_____	April 53	19	6.195
_____	Oct. 53	1	6.193
McIlwraith, C. G.	July 51	9	0.118
McLeod, W. C.	Sept. 51	15	6.133
McMynn, Robert G.	May 52	9	1.011
McNeely, William H.	Dec. 51	7	6.3
Meara, M. L.	June 52	15	4.91
Mecchi, E. P.	July 53	5	4.91
Medalia, A. I.	June 51	19	7.872
Medcof, J. C.	Sept. 52	17	2.1128
Melchert, Paul	Mar. 51	15	3.4
Mellon, M. G.	Feb. 51	25	7.50
Melnick, Daniel	May 52	19	7.610
_____	June 52	15	7.610
_____	Dec. 52	7	7.610
Menge, H.	Feb. 51	23	5.41
_____	April 53	9	6.192
Meyers, J. M.	Oct. 52	1	6.137
Migita, M.	Aug. 52	15	2.9
_____	Feb. 53	19	0.32
_____	Mar. 53	5	0.32
Miller, B. S.	Sept. 51	17	0.38
Miller, D. D.	Dec. 53	15	1.015
Miller, R. F.	Feb. 51	9	6.192

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Miller, Robert L.	Oct. 51	11	0.12
Miller, Thomas B.	July 51	19	7.2
Mitchell, H. H.	Sept. 52	5	7.52
Mitchell, Thomas J.	Mar. 51	15	7.43
_____	Sept. 53	3	0.30
_____	Sept. 53	5	6.3
Miyauchi, D. T.	Jan. 51	17	1.015
_____	July 52	13	6.51
_____	April 53	1	3.249
_____	Sept. 53	15	3.24
Moeller, Therald	Feb. 51	25	7.50
Moore, R. N.	May 51	3	7.871
_____	April 52	17	4.64
Morgan, Agnes Fay	Feb. 53	7	6.139
Mori, Takajiro	Oct. 53	3	4.14
_____	Nov. 53	17	8.64
_____	Nov. 53	19	8.64
Morin, E. L.	June 52	19	3.26
Morpeth, J. C.	Mar. 52	3	0.118
Morrison, G. H.	Feb. 51	25	7.50
Morse, Roy E.	Jan. 51	15	0.6
Morton, B. H.	Sept. 51	5	4.15
Morton, R. A.	May 52	7	5.111
_____	May 52	11	8.59
_____	July 52	5	7.611
_____	Nov. 52	3	7.611
_____	June 53	5	7.611
Moss, Frank T.	Oct. 52	17	2.119
Mossel, D. A. A.	June 53	7	2.01
Mosteller, Frederick	Aug. 51	17	7.1
Mueller, Alexander	Mar. 51	9	7.6132
Munter, A. M.	June 52	3	3.238
_____	Dec. 53	7	3.26
Murakami, Kunio	Feb. 53	9	3.249
Murdoch, A. C.	Sept. 51	3	3.26
Murdock, Harold R.	Sept. 52	11	3.18
Murphy, George	Sept. 51	17	0.2
Murse, T. J.	Oct. 53	5	2.113
Mutch, R. L.	Oct. 53	7	3.231
Nagakura, T.	Feb. 53	21	2.06
Nair, P. V.	Dec. 53	19	6.249
Nakai, Tadashi	Dec. 51	13	7.81
_____	Dec. 51	17	7.81
_____	Feb. 52	5	2.02
Naumann, H. D.	Mar. 52	15	7.872
Neilands, J. B.	Aug. 53	17	5.2
Nelson, E. L.	April 52	5	3.231
Neumer, John F.	July 53	3	7.879
_____	July 53	11	4.64
Newell, Martin E.	Jan. 53	13	6.190
Nichols, James B.	Nov. 52	3	3.239
Nickerson, John T. R.	June 52	9	3.19
Nikkila, O. E.	Aug. 53	11	4.62
Nilson, Hugo W.	Mar. 51	17	6.190
_____	May 51	5	6.3
_____	Sept. 51	1	6.3
_____	Oct. 51	15	2.9
Nilson, Hugo W.	April 53	19	6.190
Nitchals, Ruth	Jan. 51	19	8.64
Nitta, T.	Feb. 53	21	2.06
Noble, Isabel	Nov. 52	3	3.249
Norris, L. C.	Feb. 51	9	6.192
_____	Sept. 52	1	6.190
_____	Aug. 53	1	6.193
Norton, E. J.	Aug. 53	3	3.239
Norton, Karl B.	Feb. 53	7	4.61
Notevarp, Olav	April 51	3	3.249
_____	May 51	7	3.230
_____	Nov. 53	15	0.6
Novellie, L.	May 51	17	6.233
_____	Mar. 52	13	1.95
_____	Oct. 52	9	8.51
_____	May 53	9	4.13
Nunn, W.	Dec. 53	19	4.14
Ogasawara, Y.	Feb. 52	19	9.14
O'Hare, G. A.	Feb. 51	5	4.83
Ohlson, Margaret A.	Jan. 51	19	8.64
Okada, Minoru	Feb. 53	19	0.32
_____	Mar. 53	5	0.32
_____	June 53	7	2.01
Olcese, Orlando	May 51	17	5.41
Oldershaw, C. G. P.	Aug. 53	3	3.231
Oleson, J. J.	May 51	9	5.41
Olley, June	Sept. 53	13	8.53
Omote, Yoshimori	May 52	11	4.14
_____	June 52	7	7.611
Ota, Fuyuo	May 53	17	7.81
Palmer, David D.	Aug. 51	1	6.51
_____	Aug. 51	7	6.51
_____	Oct. 51	11	9.14
Pappenhagen, A. R.	Oct. 53	13	6.193
Parkin, F. P.	April 51	7	6.133
Partmann, W.	July 53	15	3.17
_____	Aug. 53	15	2.01
_____	Sept. 53	9	7.80
Patashnik, M.	May 53	15	3.33
Pathak, S. P.	Mar. 53	5	4.15
Payne, Merle H.	Oct. 51	11	9.14
Pedersen, Torbjorn	Dec. 53	5	8.7
Pegler, H. F.	July 51	1	7.641
Pentzer, W. T.	Feb. 52	15	3.26
Peryam, David R.	Jan. 51	7	7.80
_____	June 51	5	7.80
_____	Nov. 51	7	7.80
_____	July 52	5	7.80
_____	Nov. 52	1	7.80
Petering, H. G.	Nov. 51	5	5.6
Petersen, C. F.	Oct. 53	13	6.193
Petersen, Halvor	July 51	9	3.4
_____	July 51	17	6.59
_____	Dec. 52	11	3.8

Author	Date	Page	Subj. Code
Petersen, Halvor	Dec. 53	1	6.55
Peterson, C. E.	July 52	11	9.2
Peterson, C. F.	July 51	3	5.41
Peterson, Ruth	Mar. 52	17	2.02
Peterson, Stanley R.	Oct. 52	11	3.30
_____	May 53	19	3.30
Petursson, Sigurdur	Aug. 52	9	5.41
Phillips, H. J.	May 52	11	4.5
Pierce, Jack V.	July 52	7	7.641
Pigott, George M.	June 51	9	6.14
Pike, Gordon C.	Jan. 51	23	9.12
_____	Oct. 53	3	1.95
Pinckard, J. H.	Sept. 53	3	0.34
Piskur, M. M.	June 52	17	6.133
_____	Aug. 52	11	4.92
_____	Oct. 53	9	6.131
_____	Nov. 53	19	8.53
Pitt, Norman	April 52	1	6.134
Pivnick, Hilliard	May 51	3	2.01
_____	Aug. 51	9	2.05
Platt, Clarence S.	Nov. 52	5	6.89
Plumbridge, N.	Feb. 52	17	6.132
_____	April 53	9	6.132
Potter, Earl F.	April 51	1	7.43
Potter, L. M.	Feb. 53	7	6.190
Pottinger, S. R.	Mar. 51	9	3.239
_____	Mar. 51	15	3.238
_____	June 51	11	3.249
_____	Nov. 51	19	4.61
_____	Mar. 52	9	3.230
_____	July 52	7	7.84
_____	July 52	17	3.230
_____	Nov. 52	13	3.239
_____	Aug. 53	3	3.231
Power, E. A.	Aug. 53	15	2.119
Power, H. E.	Nov. 53	3	2.3
Powell, Donald E.	April 51	17	2.12
_____	Aug. 52	3	2.12
Powers, P. O.	Mar. 51	7	4.29
Prebish, Ray	July 52	3	3.30
Preston, W.	Nov. 52	13	6.130
Pritchard, H.	July 51	1	7.641
_____	Oct. 52	11	8.64
_____	July 53	13	6.190
Proctor, Bernard E.	June 51	5	3.19
_____	Nov. 51	11	3.19
_____	Nov. 51	13	8.64
_____	Dec. 51	13	3.19
_____	June 52	9	3.19
_____	Dec. 52	3	3.238
Prudden, Ted	Jan. 52	3	2.1128
Pryde, Everett H.	Mar. 51	1	6.9
Pugsley, L. I.	Aug. 52	11	3.39
Puncochar, Joseph F.	Sept. 51	7	3.231
_____	Mar. 52	13	3.230
_____	July 52	17	3.231

Author	Date	Page	Subj. Code
Raeithel, H.	Dec. 53	7	4.60
Raiha, C. E.	Sept. 52	5	5.2
Ramakrishnan, T. A.	Dec. 53	19	6.249
Ramsey, L. L.	Feb. 51	3	7.82
Reay, G. A.	April 51	5	2.40
_____	April 51	13	1.87
_____	April 51	15	1.2
_____	Aug. 51	9	1.0146
_____	Feb. 52	13	2.19
_____	Mar. 52	7	2.19
_____	April 52	3	2.118
Rechnitzer, Andreas B.	May 53	5	7.599
Redit, W. H.	Feb. 52	15	3.26
_____	June 52	11	3.26
Reed, G. B.	Jan. 53	11	0.6
Reed, J. R.	Feb. 51	23	6.192
Reid, R. L.	Sept. 52	3	4.12
Reidel, Bernard B.	Oct. 51	19	6.195
Reiners, R. A.	Mar. 52	15	6.133
Reynolds, W. M.	Oct. 53	1	6.193
Rhodes, D. N.	Mar. 52	9	4.5
Rice, Lyla Mae	Nov. 53	5	3.249
Richards, J. F.	April 51	5	2.6
Richardson, I. D.	Feb. 53	17	2.14
Rickards, James C.	May 51	5	7.641
_____	May 51	19	7.641
_____	Nov. 52	17	7.641
Riddell, W. A.	July 53	19	8.50
Rider, Agatha A.	Sept. 51	13	0.32
Riemann, Hans	April 51	9	2.01
_____	Sept. 51	13	3.12
_____	Dec. 52	19	3.8
Rigg, George B.	Nov. 51	9	6.3
Ringrose, R. C.	Feb. 53	7	6.190
Risley, Hugh A.	Sept. 52	3	5.126
Rix, R. E.	Jan. 52	15	2.111
Roach, S. W.	Nov. 52	13	3.33
_____	July 53	5	3.234
Robinson, F. A.	July 51	7	5.110
_____	July 52	19	5.41
Robinson, Leslie A.	Aug. 51	1	6.51
_____	Aug. 51	7	6.51
_____	Oct. 51	11	9.14
Robinson, R. H. M.	Dec. 52	19	2.01
Robinson, William	Nov. 52	5	6.89
Roelofs, Eugene W.	Jan. 51	1	2.1121
Rogers, L. B.	Feb. 51	25	7.50
Rooke, E. A.	Jan. 52	5	3.26
Rosapepe, Joseph S.	Nov. 53	7	3.238
Rose, Arthur	Feb. 51	25	7.50
Rose, Dyson	Mar. 51	15	2.02
_____	Mar. 52	17	2.02
Rose, R. C.	June 51	15	6.3
Rosen, D. G.	May 52	11	8.59
Rosenberg, H. R.	Nov. 51	5	5.6
Rosenbrock, W.	April 53	3	3.5
Rosenthal, Harold L.	April 53	9	7.641
Ross, Alan G.	Oct. 53	11	7.50
Ross, Enid Sater	Nov. 52	3	3.249
Roughly, T. C.	Mar. 51	17	1.017

Author	Date	Page	Subj. Code
Rowan, A. N.	Jan. 52	15	2.00
_____	Mar. 53	15	2.0
_____	Mar. 53	17	6.54
_____	April 53	3	3.5
Rudkin, G. O. Jr.	Oct. 52	9	7.641
Russell, Ralph (Appears Quarterly)	Feb. 51	1	9.2
Saidel, Leo J.	Sept. 51	19	7.2
Saiki, Masamichi	Oct. 53	3	4.14
Sair, Louis	May 51	11	4.64
Sand, Gudmund	Mar. 51	11	6.15
Sanford, F. Bruce	Mar. 51	5	7.53
_____	May 51	15	8.6175
_____	Aug. 51	13	6.190
_____	Oct. 51	15	6.0
_____	Oct. 52	17	6.10
_____	Nov. 52	7	6.0
Sarett, Herbert P.	April 53	9	7.641
Sato, Tokuji	Nov. 53	19	8.64
Saxena, Harish	April 53	19	6.195
Scattergood, Leslie W.	July 51	19	9.6
_____	May 52	17	1.0115
_____	July 52	1	1.0115
Schachinger, Liselotte	Oct. 51	11	0.6
Schaefers, Edward A.	Dec. 52	9	2.12
Scheffe, Henry	Aug. 51	15	7.1
Scheid, Harold E.	July 51	13	7.641
_____	Feb. 52	11	7.641
_____	Jan. 53	19	7.641
Schlich, Victor A.	July 51	15	6.1
Schmidt, P. J.	Aug. 51	5	3.5
_____	Feb. 52	5	6.131
_____	Mar. 53	7	3.5
_____	April 53	19	6.132
Schopmeyer, Grace E.	Sept. 52	19	6.199
Schroeder, L. J.	Aug. 52	3	0.33
Schubert, Jack	Feb. 51	25	7.50
Schuhmann, Leo	Mar. 52	1	3.33
Schwartz, H. M.	Jan. 51	5	4.13
	May 53	9	4.13
Schweigert, B. S.	Feb. 51	15	5.41
_____	July 51	13	7.641
_____	Feb. 52	11	7.641
_____	Jan. 53	19	7.641
Scott, J. D.	Aug. 51	13	3.26
Seagran, Harry L.	July 53	9	8.51
Sealock, Robert R.	Feb. 51	23	5.41
Seaman, W. R.	Dec. 51	19	6.51
Seifert, Robert P.	Jan. 53	1	2.8
_____	Aug. 53	5	2.8
Sellers, K. C.	Feb. 51	23	5.122
Sephton, H. H.	Mar. 52	13	1.95
Sevigne, Frank J.	April 51	19	5.120
Shapiro, Ruth	July 52	5	7.80
Shapiro, Sidney	May 51	13	2.1123
Sharp, J. G.	Dec. 52	19	3.249
Shaw, G. E.	Feb. 51	23	5.41
Shearon, Will H. Jr.	Nov. 51	1	6.82
Shelburne, V. B.	Oct. 51	11	4.2
Shepherd, C. B.	May 53	9	6.133
Sheperd, K. M.	Oct. 52	17	3.30
Shewan, J. M.	April 51	13	3.17
_____	Dec. 51	15	9.15
_____	Sept. 53	9	7.80
Shiga, Iwao	Nov. 53	17	3.30
Shimada, Bill M.	Mar. 51	3	1.015
_____	May 51	1	2.14
Shimizu, Kazuko	Nov. 53	19	8.6177
Shorland, F. B.	April 53	15	4.13
_____	May 53	17	4.7
_____	Oct. 53	1	4.13
Short, Byron E.	Mar. 52	3	3.234
_____	April 52	15	0.2
Shuttleworth, Ronald G.	April 51	11	6.71
_____	Mar. 52	13	1.95
_____	May 51	17	6.233
Siebenaler, J. B.	Dec. 52	15	6.10
Siemers, G. F.	Aug. 51	15	4.61
Sigurdsson, G. J.	July 52	19	2.00
_____	Sept. 52	13	2.01
Simerl, L. E.	Mar. 53	17	3.238
Simidu, Wataru	Feb. 53	21	0.32
_____	Mar. 53	1	0.32
Simma, Y.	April 52	5	2.02
Singsen, E. P.	Jan. 52	11	6.192
Slanetz, Charles A.	Feb. 51	23	5.119
_____	May 51	15	5.126
Slater, Lloyd E.	Dec. 51	1	0.12
_____	Dec. 52	5	3.26
Smith, David B.	Dec. 53	1	6.3
Smith, E. G.	Aug. 51	15	4.61
Smith, F. H.	July 51	9	0.119
Smith, G. Howard	Dec. 52	19	3.249
Smith, J. G.	Jan. 53	3	3.234
Smith, S. E.	Jan. 51	3	3.18
Snell, Cornelia T.	June 52	17	7.80
Snell, Esmond E.	Dec. 51	3	5.4
Sniegowski, M. S.	Mar. 52	15	6.133
Snow, J. Murray	April 52	15	2.01
	June 52	19	7.81
Soars, Margaret H.	June 51	7	7.641
Sobel, A. E.	Aug. 53	19	7.610
Soma, Toyozo	Feb. 53	9	3.249
Soma, Yoshitaka	June 52	7	7.611
Sorbye, O.	April 53	3	4.20
Sorensen, S. O.	Feb. 51	1	4.7
_____	Sept. 52	9	4.83
Southall, C. L.	April 52	1	6.82
Southcott, B. A.	Feb. 52	9	4.61
_____	Dec. 52	3	3.12
_____	July 53	11	8.64
_____	Nov. 53	17	8.64
Sparre, Trygve	Mar. 51	11	6.15
_____	Sept. 53	5	6.139
Spencer, C. F.	May 53	19	8.65
Spicer, S. S.	June 52	5	0.32

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Springer, Stewart	Feb. 52	3	1.85
———	Nov. 52	9	2.12
Spruth, Henry C.	June 53	1	7.641
Sreenivasan, A.	Dec. 53	9	0.5
Srisukh, S.	Jan. 51	21	0.39
Stander, G. H.	Dec. 51	7	7.43
———	Jan. 52	7	3.33
———	Jan. 52	15	2.00
———	April 53	9	6.132
Stansby, M. E.	May 51	19	3.33
———	Oct. 51	3	3.33
———	Nov. 51	17	7.53
———	July 52	3	3.249
———	July 52	7	7.80
———	July 52	9	8.7
———	July 52	13	6.51
———	Nov. 52	1	6.190
———	April 53	1	3.249
———	Sept. 53	9	7.53
Staph, Horace E.	Mar. 52	3	3.234
———	April 52	15	0.2
Steele, L. B.	Aug. 51	17	3.238
Steele, R. R. Jr.	Jan. 51	13	2.115
Steiner, Arnold B.	Dec. 51	7	6.3
Stephenson, E. L.	May 53	11	6.192
Stern, Joel R.	Jan. 51	21	0.7
Stevenson, Charles B.	Feb. 52	17	3.18
Stevenson, Robert L.	June 51	15	1.95
Stock, F. G.	Nov. 52	7	7.611
———	Dec. 52	7	7.611
Stoloff, L. S.	Oct. 52	7	6.3
Stolting, Walter H.	Sept. 52	15	2.6
Storvick, Clara A.	Jan. 51	17	7.44
Stuckey, R. E.	July 51	1	7.641
Stumbo, C. R.	Nov. 53	7	3.33
Sulzbacher, William L.	Jan. 51	9	3.239
Summer, W.	Sept. 53	5	6.135
Sunde, M. L.	Jan. 52	9	5.41
———	Sept. 52	17	6.190
Sure, Barnett	April 53	5	6.195
Sutherland, P. A.	April 51	9	3.5
Suyama, Michizo	Feb. 53	21	0.32
Suzuki, Noboru	Dec. 53	1	6.3
Swain, Lyle A.	Sept. 51	5	4.15
———	April 53	15	4.13
———	July 53	5	4.11
Swanson, William J.	Sept. 52	3	5.126
Swartz, VeNona W.	Jan. 51	7	7.80
Swem, Edward R.	June 52	17	3.4
Swickard, Mary T.	Oct. 53	13	6.190
Tack, Peter I.	Jan. 51	19	8.64
Takahashi, Iwao	May 52	3	8.51
———	May 52	13	7.81
Takahashi, Keiichi	Feb. 52	7	7.525
Takahashi, T.	Jan. 52	19	7.591
———	Feb. 52	17	8.42
Takeda, Kazuo	Feb. 53	21	0.32
Takuma, Hitosi	Feb. 53	21	0.32
Tanaka, Kazue	Mar. 52	1	3.239
Tanaka, Takeo	Mar. 52	1	3.239
Tappel, A. L.	May 53	9	4.5
———	July 53	11	4.21
Tarr, H. L. A.	Mar. 51	19	3.12
———	July 51	13	5.41
———	Aug. 51	19	2.01
———	Sept. 51	9	3.64
———	Nov. 51	1	6.195
———	Dec. 51	3	5.41
———	Feb. 52	9	4.61
———	April 52	7	6.139
———	Aug. 52	11	7.51
———	Aug. 52	13	3.12
———	Aug. 52	13	6.192
———	Sept. 52	11	3.12
———	Nov. 52	17	6.134
———	Dec. 52	1	6.190
———	Dec. 52	3	3.12
———	Feb. 53	5	2.01
———	Mar. 53	1	0.33
———	Mar. 53	9	7.641
———	April 53	9	6.193
———	April 53	17	2.01
———	June 53	11	0.33
———	July 53	3	6.193
———	July 53	11	8.64
———	Aug. 53	13	2.01
———	Aug. 53	17	3.249
———	Aug. 53	19	7.85
———	Oct. 53	17	0.38
———	Oct. 53	17	0.39
———	Oct. 53	17	2.01
———	Nov. 53	17	8.64
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———	Dec. 51	17	6.64
Taylor, Francis	June 53	7	2.08
Taylor, R. J.	Oct. 52	9	7.641
Taylor, W. L.	April 51	7	6.138
Tejima, Setsuzo	Dec. 51	7	6.71
———	Feb. 52	11	7.591
Ten Eyck, R. N.	Aug. 52	15	6.133
Tessier, H.	July 53	9	0.115
Tetsumoto, S.	Feb. 52	1	3.12
Thiessen, R.	June 51	5	0.7
Thistle, M. W.	July 51	13	3.26
———	Feb. 52	15	3.26
Thomas, R. S.	April 51	15	6.3
Thompkins, E. R.	Feb. 51	25	7.50
Thompson, Charles	April 52	15	6.52
Thompson, R. B.	Oct. 51	5	4.69
Thorbjarnarson, Thordur	Feb. 53	3	6.23
———	Mar. 53	19	8.6175
Thuesen, Wilhelm	June 53	9	8.59
Tischer, R. G.	July 51	11	2.01
———	Oct. 51	3	3.33
Tollenaar, F. D.	Feb. 52	15	4.61
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———	July 53	3	7.89

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———	Feb. 53	7	4.61
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———	May 52	3	8.69
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Tucker, C. G.	Sept. 53	9	7.80
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Van Atta, R. E.	Feb. 51	25	7.50
Van Campen, W. G.	Mar. 51	3	1.015
Vandenheuvel, F. A.	Mar. 52	19	4.11
———	June 53	5	6.230
van der Broek, C. J. H.	April 51	3	3.249
———	Feb. 52	15	4.61
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———	June 53	7	2.01
Vander Harr, R. W.	Feb. 51	23	5.41
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Werbin, Harold	Aug. 53	19	7.610
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Wiegand, E. H.	Sept. 51	19	3.230
Wiese, A. C.	Oct. 53	13	6.193
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Wile, D. D.	June 53	3	3.231
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Wilkie, J. B.	Jan. 51	3	7.610
Willard, H. H.	Feb. 51	25	7.50
Williams, David W.	Jan. 53	19	7.81
Williams, Delbert	July 53	5	4.91
Williams, E. W.	Feb. 51	7	3.26
Williams, Harold H.	April 51	19	6.195
	Oct. 51	9	7.52
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Williams, O. B.	June 52	17	2.01
———	July 52	13	7.89
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Williams, Robert H.	Jan. 51	23	6.3
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_____	May 53	11	6.3
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Wormwell, F.	Oct. 53	5	2.113
Wraige, D. R.	Oct. 52	11	8.64
_____	July 53	13	6.190
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_____	April 52	5	2.02
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Yanase, Masaaki	Feb. 53	1	8.64
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Young, O. C.	May 51	5	3.249
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The assay of vitamin B_{12}. Part VI. Microbiological estimation with a mutant of Escherichia coli by the plate method, Apr. 52, 7.
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Microbiological assay of vitamin B_{12} in crude materials, July 52, 13.
A note on the microbiological assay for vitamin B_{12}, June 51, 1.
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Studies on a microbiological method for vitamin B_{12} activity, June 52, 1.
The vitamin B_{12} activity of natural material with particular reference to cod liver protein, Mar. 53, 9.

Miscellaneous B-complex vitamins

Medium for assay of vitamins with lactic acid bacteria, June 51, 7.
Polarographic studies on "folic acid" (preliminary report), Dec. 53, 25.
Theoretical and practical considerations in the determination of aneurine (vitamin B_1) with special reference to the recovery factor, July 51, 25.

ANALYSIS, VITAMINS, MISCELLANEOUS

Determination of vitamin A and E by paper chromatography, Aug. 53, 9.
Development of a chick assay for an unknown growth factor, Feb. 53, 29.
Estimation of ascorbic acid in pharmaceuticals, Dec. 51, 25.
Microbiological assay of pure vitamin D_2 and vitamin D_3; possible function of non-ionic and ionic lipids for the bacterial cell, Mar. 51, 17.
Observations on the spectrophotometric estimation of vitamin D, Jan. 51, 21.
Report on vitamins, Oct. 51, 25.
Separation of D vitamins from other sterols by paper chromatography and the quantitative determination of 7-dehydrocholesterol, Feb. 53, 29.
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ANALYSIS AND COMPOSITION, SPECIFICATIONS AND OIL CONSTANTS

Chemical investigation of the skipper oil, Nov. 52, 17.
The component fatty acids of elephant seal oil: the distribution in the body, May 51, 23.
Dilatometric studies of pure triglycerides and mixtures, June 52, 23.
Index of refraction of the unsaponifiable matter in cod liver oil, Feb. 52, 25.
Liver oil properties of Philippine sharks and rays, June 51, 3.
Molecular distillation of fin whale liver oil, July 52, 9.
On the study of a whale (Ziphius cavirostris, Cuvier), Nov. 53, 19.
A procedure for the determination of total unsaturation in the products of in vitro oxidation of fatty acids in biological systems, June 52, 23.
Report on total solids and free liquid in clams, Jan. 51, 13.
Some comparative aspects of the biochemistry of fish (a symposium), May 51, 11.
The spectrographic determination of linoleic and linolenic acids, June 51, 23.

ANIMAL PROTEIN FACTOR (see VITAMINS, VITAMIN B_{12} AND ANIMAL PROTEIN FACTOR; ANALYSIS, VITAMINS, B COMPLEX - Animal protein factor and vitamin B_{12})

ANTIOXIDANTS

Ascorbic acid

Ascorbic acid, Feb. 51, 15.
Commercial processing of frozen fish with ascorbic acid, Aug. 51, 15.
The effect of antioxidants on the quality of frozen chicken and fish, Nov. 53, 5.
Lemon juice as an anti-oxidant for the frozen fish pack, May 53, 11.
Processing and storing ascorbic acid-treated fish products, Oct. 51, 7.
Some factors affecting the antioxidant behavior of ascorbic acid with unsaturated fats, July 51, 7.

Gallic acid and gallates

Estimation of antioxidants in lard and shortening, Nov. 51, 19.
The relative rates of destruction of propyl gallate and butylated hydroxyanisole in oxidizing lard, Mar. 53, 25.
Report on antioxidants in oils, fats, and waxes. Propyl gallate, Sept. 52, 13.
The use of ethyl gallate as an antioxidant in the freezing of eels, Feb. 52, 15.

Miscellaneous and general

The anti-oxidant action of wood smoke on fish oils, Aug. 53, 11.
Antioxidant properties of an ethylene dichloride extract of cottonseed meal, Feb. 51, 25.
The antioxidant properties of natural spices, June 52, 7.
Anti-oxidants, Dec. 53, 21.
Antioxidants in aqueous fat systems, Feb. 52, 19.
Antioxidants and food preservation, Nov. 52, 23.
Antioxidants in foods, Dec. 53, 7.
Antioxidants for medicinal oils, Dec. 51, 13.
Antioxidants in packaging film protects contents, Aug. 53, 11.
Antioxidants provide new flavor controls, Sept. 52, 5.
Butylated hydroxyanisole in lard and shortening, Jan. 52, 25.
A comparative evaluation of several antioxidants in edible fats, Apr. 52, 17.
Control of rancidity in stored fish. IV., Feb. 52, 9.
The development of rancidity in cold-stored herrings; the influence of some antioxidants, Jan. 53, 7.
Effect of antioxidant addition to fish waste on folic acid and crude protein content, Dec. 53, 19.
The effect of citric acid upon the oxidation of peanut oil and of the methyl esters derived from peanut oil, Mar. 51, 3.
Effect of antioxidant on rancidity development in frozen creamed turkey, Apr. 52, 17.
Effect of temperature and antioxidants upon the lipoxidase-catalyzed oxidation of sodium linoleate, July 53, 11.
Kinetic study of the action of anti-oxidants, Nov. 53, 11.
Precooked frozen stews and swiss steak, May 53, 25.
Preservation and quality of whalemeat, Mar. 53, 5.
Problems arising from the use of chemicals in food-antioxidants, Oct. 52, 15.
Retarding the loss of red color in cayenne pepper with oil antioxidants, Nov. 51, 25.
A simple method for the improvement of the keeping quality of oils and fats, Feb. 53, 17.

Miscellaneous and general (Cont'd)

Sulfur compounds as antioxidants, Oct. 51, 5.
Sulfur compounds as antioxidants. Effect of some structural variations on potency, Oct. 52, 23.
Syntheses of antioxidants for fats and oils. II. Cresol analogs of N.D.G.A. and polynuclear phenolic antioxidants, Oct. 53, 25.
The use of anti-oxidants, Dec. 53, 7.
The use of antioxidants in deep fat frying, May 51, 11.
The use of antioxidants in dry dog food, July 53, 11.
Use of antioxidants in frozen storage of turkeys, Nov. 52, 23.
The use of monosodium glutamate in frozen foods, Feb. 53, 7.

Phenols

The antioxidant behavior of the isomers of butylated hydroxyanisole, Mar. 52, 9.
Estimation of 2- and 3-tert-butyl-4-hydroxyanisole isomers, June 52, 23.
The mechanism of the antioxygenic synergism of quinones and quinols with phosphoric acid and other acids in fat systems, Jan. 51, 19.
Phenolic antioxidants for carotene, June 51, 23.

APPARATUS AND EQUIPMENT, LABORATORY AND PLANT

Byproducts

Annual review of literature on fats, oils, and soaps. I, Oct. 53, 9.
Centrifuging's big strides, Mar. 51, 3.
Drying in fish meal reduction plants, Apr. 52, 1.
Fish-liver oils, Dec. 53, 23.
Mechanical extraction of drying oils, Mar. 51, 3.
Three extraction stages in one machine, Apr. 52, 25.
Viscous products concentrated at high rate in agitated falling-film evaporator, Dec. 52, 15.

Canning, smoking, and drying

Fish dressing machines, Aug. 51, 3.
A plan for controlling the smokehouse fire hazard, Oct. 52, 13.
Top-quality drying in a flash, Sept. 52, 13.
The Torry fish smoking kiln, Dec. 52, 5.

Fresh fish and shellfish

Herring processing machinery, Mar. 53, 11.
High labor costs, waste eliminated by mechanized breading of oysters, Sept. 53, 11.
Inventor cites features of new fillet machine, Sept. 53, 19.
Longer-life cutting table, Nov. 51, 3.
New filleting machine in action, Oct. 52, 3.
New Swedish herring filleting machine, July 53, 1.
Prevention of fish deterioration, Mar. 52, 17.
Skinning fish, Oct. 53, 5.
Tests of the protective value of metallic coatings under sheltered conditions (marine atmosphere) Sept. 53, 11.
Transfer rollers for fillet conveyor belts, Nov. 53, 3.
Washing dirty fish boxes, June 53, 1.

Frozen fish

An air blast freezer for research, Oct. 53, 7.
Blower coil design and selection for proper humidity control, June 53, 3.
Brooklyn storage lines freezer rooms with aluminum foil, May 52, 11.
Cold store drains, June 52, 23.
Continuous freezing of retail cartons at rate of 150 per minute requires only one operator, Feb. 52, 15.
Equipment and procedure for thawing fish frozen at sea -- technical note no. 21, Nov. 52, 15.
Field removal of moisture, Sept. 51, 19.

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Frost heaving freezer floors, Apr. 52, 5.
Fundamentals of refrigerant piping for freon-12 and freon-22 systems, July 52, 23.
Improved 'no frost' equipment, Oct. 51, 23.
Insulation of refrigerated warehouses by means of aluminum foil inserts, Nov. 52, 1.
Moisture in refrigerating machinery circuits and components -- I. Its effects, prevention of entry and dehydration, Oct. 53, 25.
Novel thermo train developed in Sweden freezes perishables on the spot anywhere, May 53, 3.
A portable immersion freezer -- technical note no. 24, Aug. 53, 3.
Refrigeration applications in the fishing industry, Aug. 53, 23.
Removes freezing hazard below sub-zero rooms, Oct. 52, 19.
Some cold storage practices in Canada with particular reference to jacketed holding rooms, Mar. 52, 9.
Trawler freezing, July 52, 23.

Laboratory

Brown recorder into a controlling potentiometer, Nov. 52, 19.
Cell out (electrogravitational removal of salts), Sept. 51, 17.
A compensated reciprocating laboratory shaker, July 53, 9.
Demineralization of saline waters, Feb. 53, 23.
Dispensing pipet with glass piston, Jan. 52, 21.
False absorption bands in the region of 200-230 mμ caused by stray radiation in the Beckman spectrophotometer, Sept. 51, 19.
Finds oil content of soy beans or meal in a few minutes, Nov. 52, 19.
Frost-coil added, output upped, Feb. 52, 23.
Instant, on-the-spot pH determinations anywhere, Aug. 51, 25.
Ion exchange membranes desalt water with ease, June 52, 9.
Kjeldahl flask tray, July 51, 9.
A laboratory deodorizer for fats and oils, Apr. 51, 7.
Notes on a modified Dean and Starke apparatus, Apr. 52, 9.
No weighing of sample needed in moisture determination with infrared oven, May 52, 9.
Photoelectric vacuum controller, Jan. 52, 1.
Portable meter for determining dissolved oxygen, Jan. 52, 21.
A radio-frequency electronic moisture meter, May,51, 13.
Rapid moisture determination in herring meal, Dec. 52, 7.
Short-path vacuum stills, Feb. 51, 25.
A simple, inexpensive microhomogenizer, Nov. 51, 13.
A simple penetrometer for the measurement of texture changes in canned salmon -- technical note no. 16, Aug. 52, 5.
Simple vibration-suppressing support for balances, July 51, 9.
Use of silicone water-repellents in the laboratory, May 53, 21.
Vacuum in canned foods -- a better method for measuring it, Mar. 52, 3.
Variability in the Beckman spectrophotometer, Dec. 51, 15.

Plant

Fresh water from sea water by solar distillation, July 53, 21.
How to care for stainless steel equipment, Apr. 52, 13.
How protective coatings fight corrosion, May 53, 23.
Lighting the food plant, Nov. 51, 21.
New apparatus extracts salt from ocean water, June 52, 5.
New insulation has interesting qualities, Nov. 52, 17.
Newly developed unit checks pH right on line, Dec. 51, 1.
Noxious plant fumes converted to harmless, invisible gases, Dec. 53, 21.
Odour control with ultra-violet radiation, Sept. 53, 5.
Power for the small chemical plant, Oct. 51, 11.
Rust preventative paint, May 52, 9.
Rusting prevented by use of "inhibited salt", Sept. 53, 15.
Steel barge can be used as permanent dock, Sept. 53, 7.

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China

Food and the future, May 53. 13.

General and miscellaneous

Fish marketing in Batavia, July 51, 21.
Fishery products of Indo-China. A compilation of literature up to the Japanese invasion, Dec. 52, 21.
Marine fisheries of Pakistan with a review on trawling, July 51, 21.
Prawn fishing in Malaya, Dec. 53, 15.
The problems of fish storage and refrigeration in south east Asia, July 51, 21.
Recent fisheries developments in Asia, the Far East, and Oceania, Apr. 53, 21.
Thailand fisheries need to be developed, Sept. 52, 21.
Tuna bait resources at Saipan, Apr. 51, 21.
Tuna fishing in Palau waters, Apr. 51, 21.

India

Deep sea fishing in the Indian Ocean, Feb. 53, 11.
Marine fisheries of India, July 51, 21.
A review of the Indian oil sardine fishery, Nov. 53, 21.

Japan

Japan's fish liver and oil industry, Sept. 51, 13.
The Japanese albacore fishery of the North Central Pacific, Mar. 51, 3.
The Japanese long-line fishery for tunas, May 51, 13.
Japanese 1952 North Pacific salmon-fishing expedition, July 53, 23.
Japanese skipjack (Katsuwonus pelamis) fishing methods, May 51, 1.
The Japanese tuna fishing industry (translations), May 53, 21.
Japanese tuna-mothership operations in the western equatorial Pacific Ocean, Oct. 51, 21.
Some processing and technological methods in the Japanese fisheries, Jan. 51, 17.

Philippines

Bacteriological studies of Philippine fishery products, June 51, 3.
Fish processing handbook for the Philippines, Dec. 51, 11.
Fishing gear preservatives for Philippine waters, June 51, 3.
Guide to the classification of fishing gear in the Philippines, May 51, 9.
Liver oil properties of Philippine sharks and rays, June 51, 3.
Outlook for development of a tuna industry in the Philippines, Aug. 51, 21.

AUSTRALIAN AND NEW ZEALAND FISHERIES

Australia

Australia -- a new source for lobster tails, Jan. 52, 13.
Australian prawning, Jan. 53, 19.
Australia's canned fish industry, Feb. 53, 15.
Australia's canned fish industry, Nov. 53, 15.
Australia's tuna industry, Feb. 52, 21.
Fish and fisheries of Australia, Oct. 52, 19.
Making history with tuna poles in Australian seas, Mar. 51, 17.
Pelagic fishing experiments in Australian waters, Apr. 52, 19.
Tuna canning "down under" on its way up, Nov. 52, 9.

New Zealand

Fats and New Zealand's economy, May 53, 17.

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BIOLOGY (see FISHERY BIOLOGY AND FISH CULTURE - Fishery biology)

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BYPRODUCTS, MISCELLANEOUS

Chemicals and pharmaceuticals

Alcohols from menhaden oil by sodium reduction, Mar. 51, 1.
The large scale preparation of sodium desoxyribonucleate from ripe salmon testes, Dec. 53, 23.
On the complete utilization of milts II. Utilization as a spreader, Dec. 53, 23.
Production of ACTH from whale hypophysins stepped up, Jan. 52, 25.
The separation of cholesterol from halibut liver oil, Mar. 52, 3.
Studies on insulin of the marine-mammals II., Dec. 53, 23.
Vicious sea predator may be invaluable aid to medicine, June 52, 25.

Fish and animal consumption

Alaska salmon cannery waste being used at Fish and Wildlife Service hatcheries, Oct. 51, 13.
Alaska salmon potential, Nov. 53, 27.
The feeding of cooked carp to hatchery trout in Colorado, Dec. 51, 19.
Freshwater fish as an ingredient of mink rations, Apr. 52, 15.
Ground fillet offal frozen in paper bags for fur feeding, Jan. 52, 19.
The liquid ensilage of fish for animal feeding-stuffs, Sept. 53, 25.
Mink fish feed, July 52, 13.
Potential markets for Alaska salmon cannery waste, Mar. 53 11.
Utilization of Alaska salmon cannery waste as a source of feed for hatchery fish, July 52, 13.

Fish products for human consumption

Chemical study on putrefaction of fish muscle. III. Manufacture of food yeast from putrefied fish, Jan. 53, 23.
Rock lobster roe in fish paste, Jan. 52, 13.
Smoking of stockfish, Mar. 53, 17.
Studies on fish meat jellies I. The relationship between the freshness of shark meat and its ability to form "Kamaboko" jelly, Oct. 52, 25.
Studies on fish meat jellies II. A method for determining jelly strengths of fish meat jellies, Mar. 53, 27.
Studies on the utilization of fish meal for food, Feb. 53, 21.
Temperature and salt purity effects on the manufacture of fish paste and sauce, July 51, 25.

General and miscellaneous

Acid preservation of fish and fish offal, Dec. 53, 1.
Annual report from the Fishery Minister's research laboratory for 1952, May 53, 3.
Boston firm uses fermented fish in new soil fertilizer, Mar. 53, 17.
Bute Inlet wax, Aug. 51, 5.
The byproducts picture, Oct. 51, 25.
Ensilaging of fish and fish waste, July 51, 17.
Fish glue, Jan. 53, 13.
Fish handling and processing in Europe -- fish by-products, Dec. 53, 13.
Fish leather relieves Norway's leather shortage, Jan. 51, 23.
Leather bates from fish viscera, Apr. 51, 11.
Liquid fertilizers lead in new applications of fish by-products, July 53, 7.
The manufacture and uses of some products from menhaden oil, Sept. 51, 15.
Marine products of commerce (second edition), July 51, 17.
Norwegians produce plastic from cod waste, Dec. 53, 23.
Physico-chemical studies on the skin and leather of marine animals--V. On the expressible water in shark skin, Dec. 53, 23.
Physico-chemical studies on the skin and leather of marine animals--VI. On the spoilage of shark skin, Dec. 53, 23.
Physico-chemical studies on the skin and leather of marine animals--VII. On the preservation of shark skin, Dec. 53, 23.
Recent progress in fishery by-products research, Nov. 52, 7.
Salmon cannery trimmings. Part I. Relative amounts of separated parts, Jan. 51, 5.
Studies of "trash" caught by shrimp trawlers in Florida, Dec. 52, 15.
Utilization of salmon eggs for production of cholesterol, lipide, and protein, Feb. 51, 19.

Protein and amino acids

The hydrolysis of the proteins in fish silage, Sept. 53, 25.
The preparation of lysine from protein hydrolysates, Sept. 51, 13.
Studies on protein hydrolysis. I. Preliminary observations on the taste of enzymic protein-hydrolysates, Mar. 53, 27.

Shell products

Cement from sea shells, Oct. 52, 7.
Oyster-shell chemistry, Nov. 51, 1.
Oystershell and grit supplements for all-mash poultry feeds, Nov. 52, 5.
Pearls from herring paste in Norway, Dec. 53, 23.
South African fish products. XXXII. The rock lobster: a study of chitin production from processing wastes, Apr. 52, 1.
The synthetic crab shell goes nature one better, Feb. 51, 7.

Whale products and byproducts

ACTH from whale glands, May 52, 3.
Ambergris, Oct. 53, 25.
B. C. whale meat frozen for pets, Oct. 53, 1.
Constituents of ambergris. VII. Oxidation and degradation products of ambrein: compounds with ambergris smell, Oct. 53, 25.
Constituents of ambergris. XIV. Total synthesis of racemic ambreinolide and some of its derivatives, Oct. 53, 25.
Creates process to make cloth from whale blubber, Oct. 52, 25.
Experiment on digestion of whale meat by koji-mould, Feb. 52, 5.
The identification of ambergris, Apr. 52, 1.
New fishery by-products developed in South Africa, Nov. 52, 23.
Pristane in ambergris, Apr. 52, 25.
Studies on digestive enzymes in whales, Dec. 51, 7.
U. S. to get Norway whale meat, Feb. 52, 21.
What has happened to American whaling?, Aug. 53, 15.

CANADIAN FISHERIES (see NORTH AMERICAN FISHERIES - Canadian fisheries)

CANNED FISH, GENERAL

Canning in specific geographical areas

Australia's canned fish industry, Feb. 53, 15.
Australia's canned fish industry, Nov. 53, 15.
The Dutch fish-canning industry, May 53, 1.
Fish-canning, South Africa, Oct. 52, 19.
Fish handling and processing in Europe -- canning brisling and sild, Aug. 53, 7.
The French canning industry, Nov. 52, 7.
Keku canning, Oct. 52, 23.
Tuna canning "down under" on its way up, Nov. 52, 9.
The U. S. canning industry from 1940 to 1950. Parts I, II, and III, Sept. 52, 23.

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Cause of the browning of certain heat-processed fish, Mar. 53, 1.
The characterization of the covering oils in canned fish, Jan. 53, 25.
Integrated salmon cannery operation, Feb. 52, 1.
Marine products of commerce (second edition), July 51, 17.
Natural and mechanical cooling in warehouse for canned seafoods, Jan. 51, 17.
Pace-setting fish cannery, Apr. 53, 27.
Putting seafood in the ration picture, Oct. 52, 11.
Sea-food products in armed forces rations, May 53, 19.
World progress in fish canning, Part I, June 52, 7.

Loading and transportation

How to prevent damage to canned foods in transit, July 53, 25.

Nutritive value

Canned meat and fish found good as fresh, Dec. 51, 23.
The effect of the commercial canning process upon puffer poison, July 53, 1.
The growth-promoting effect of commercial strained meat and fish products investigated with infantile rats, Sept. 52, 9.
The nutritive value of marine products. IX. Proximate analysis of British Columbia canned pilchard, July 53, 19.

Special products

Dietetic salmon produces sales beyond expectations, Dec. 52, 17.
Fish given "meaty flavor" by new hydrogenating process, Jan. 53, 3.
Fish and meat pastes and other savory spreads as food, Feb. 52, 1.
Influence of post-cooling operations on spoilage by recontamination, June 52, 23.
Production and consumption aspects of low sodium canned foods, May 53, 3.
Salmon croquettes, June 51, 13.
Studies on the complete utilization of squid (Ommastrephes sloani pacificus) IV. A manufacture of seasoned canned squid meat called "tomoeni", Jan. 53, 27.
Studies on the manufacture of canned mackerel. Part II. Relations between the freshness of mackerel meat and the quality of the canned product, Jan. 53, 27.
Studies on the manufacture of canned mackerel. Part III. Relations between quality of canned mackerel and the leaving time before retorting (sterilization) after the cans have been seamed, Jan. 53, 27.
Studies on the manufacture of canned mackerel, Part IV. Studies on deformation of shape of the content in the canned mackerel, Jan. 53, 27.
Studies on the manufacture of canned mackerel. Part V. Studies on the formation of curd in canned mackerel, Jan. 53, 27.

Spoilage and quality control

Bacillus as spoilage organisms in canned foods, Mar. 52, 21.
Chemical studies on the hokkigai-meat (Mactra sachalinensis Schrengk) II. On the blackened meat of canned hokki-gai, Jan. 53, 27.
Crystals in canned shrimp, Mar. 53, 23.
Estimating vacuum in a can, Nov. 53, 17.
Occurrence and nature of bacteria in canned beef, Nov. 53, 25.
A simple penetrometer for the measurement of texture changes in canned salmon -- technical note no. 16, Aug. 52, 5.
Studies on the cause of the springer in canned salmon, Jan. 53, 27.
Studies on the iridescent substances of fish scales. II. On a cause of the spoilage of fish meat in canned tomato-sardines, Nov. 52, 21.
X-ray "slave eye" promises high-speed product inspection, June 51, 5.

CANNED FISH, CONTAINERS

Cellophane liners for crawfish cans, Jan. 53, 27.
Chemical agents and residues in foods: The viewpoint of the container manufacturer, Feb. 51, 25.
Corrosion factors related to the use of tin plate for food containers, Dec. 51, 15.
Effect of progress in tin plate manufacture on the use of tin plate for cans for foods, Jan. 52, 23.
Food can progress, Aug. 52, 23.
Machine unscrambles 1500 empty cans per minute -- needs only two operators, May 53, 7.
Mechanized tuna packing, June 51, 23.
New rapid method detects small leaks in cans, May 51, 13.
The protecta-tin process, Apr. 52, 23.
Can linings. A review of recent developments in protective inside coatings and considerations in their use, Nov. 52, 23.
Some practical ways to prevent discoloration in canned meats, June 51, 17.
Those synthetic can linings, Nov. 51, 7.
Tinless tin can, May 51, 13.

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Canning in specific geographical areas

British brisling and sild sardine canning, Apr. 53, 3.
Canned stockfish - South Africa, Jan. 52, 7.
Fish handling and processing in Europe - canning, Aug. 53, 5.
Fish handling and processing in Europe - canning tuna, Aug. 53, 11.
Fish handling and processing in U. K. - canning, Feb. 53, 15.
Fish processing in South Africa Part II, Dec. 52, 11.
Jellied tuna offered on Canadian market, Feb. 51, 23.
New canned fishery products developed by Gloucester company, Feb. 51, 1.
Oyster canning in the Maritimes, Feb. 53, 9.
Pilchard canning - South Africa, Jan. 52, 7.
Rock lobster canning, Apr. 53, 1.
Some processing and technological methods in the Japanese fisheries, Jan. 51, 17.
The technique of the canning of fish and crustacea, June 53, 23.

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The application of vacuum in pre-treatment of fish for canning, Nov. 52, 13.
Astoria tuna fishermen favor bleeding as quality aid, Oct. 52, 15.
Bacteriological studies on canned crab. I. Bacteriological studies on the swelling of canned crab, Jan. 53, 27.
Biological methods of blood removal and their effectiveness in reducing discoloration in canned Dungeness crabmeat, Aug. 51, 1.
Board extends investigations, Feb. 51, 17.
Brining frozen salmon prior to canning reduces texture change, Oct. 52, 11.
Canned snoek in oil, Jan. 52,7.
Canning "little tuna" (Euthynnus alleteratus), May 52, 17.
Canning mussels, Apr. 52, 13.
Compact canning of a specialized sardine product, May 51, 19.
Crab processing, Oct. 51, 19.
Developments in canning, Mar. 53, 23.
On the evaluation of canning processes, Sept. 51, 23.
Herring canning, July 51, 11.
Infra-red rays in fish canning, July 51, 11.
Mechanized tuna packing, June 51, 23.
MSG in canned tuna, Aug. 51, 13.
Pacific oyster canning at the laboratory level, Aug. 51, 17.
Packed in glass, Apr. 52, 13.
The preparation of canned whole herring, Feb. 53, 25.
Preparing kippered meats for canning or freezing, Oct. 51, 7.
Processing canned king and Dungeness crab meat, May 51, 19.
Salmon chunks in a 4-pound can, July 51, 5.
Sardine canning, Feb. 52, 23.
Shrimp cannery, modern version, Nov. 51, 17.
Some practical ways to prevent discoloration in canned meats, June 51, 17.
Struvite formation and brown discoloration in canned rock lobster, Jan. 52, 7.
Tomatoes in the summertime; turtle soup and chili in the wintertime, Feb. 53, 13.
Tuna canning, Apr. 52, 5.
Use of frozen salmon for canning, Oct. 51, 3.
Vacuum in canned foods - a better method for measuring it, Mar. 52, 3.
Vacuum cooling saves costly process time, Feb. 53, 27.
World progress in fish canning, part II, July 52, 3.

Machines and equipment

The application of "end over end" agitation to the heating and cooling of canned food products, Mar. 52, 1.
Automatic retorting saves 100 overtime hours per week, Mar. 52, 19.
Continuous sardine cooker ups yield and quality, Nov. 51, 5.
Engineering concepts of continuous processing, Apr. 52, 21.
Fast end-over-end retorting, Apr. 53, 27.

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Fish dressing machines, Aug. 51, 3.
The headspace tester for routine inspection of canned fish, Jan. 53, 27.
Perforated liners for tuna baskets save fish and time, mess and money, Apr. 51, 15.
Problems of metals in canning equipment, Sept. 51, 23.
Small plant's successful technic for gas-purging canned goods with nitrogen gas can-closing system, Apr. 52, 21.
West Coast corporation unveils its tuna can-packing invention, Apr. 52, 23.
X-ray beam that sees thru cans of food makes debut, May 53, 7.

Preservatives

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Investigation of preservation. III. Heat resistant types of bacteria in canned foods, especially in swelled cans packed with fish and vegetables, Apr. 51, 9.
Investigation of preservation. IV. The heat resistance of the spores of the putrefactive anaerobes, isolated from swelled cans packed with fish and vegetables, Apr. 51, 9.
Investigation of preservation. V. The heat resistance of the spores of putrefactive anaerobes in meat of fish and shrimp. The basis of process-calculation, Apr. 51, 9.
New method of processing, packing crabmeat, Nov. 52, 15.
No more product spoilage from improperly processed food, Mar. 52, 13.
Studies on the preservative action of antibiotics in processed foods, June 51, 17.

Thermal processing

Autosterilization of thermophilic spores in canned foods, May 53, 21.
On a certain non-linear problem of thermal conduction in a flat can, Jan. 53, 27.
Control problems of newer processing methods, Sept. 52, 23.
Controls optimize canning, Apr. 53, 27.
Estimation of sterilizing values of processes as applied to canned foods, I. Packs heating by conduction, Aug. 51, 23.
Heat processing of beef. II. Development of iosthermal and isochronal distributions during heat processing of beef, June 53, 23.
Heat transfer in commercial glass containers during thermal processing, Jan. 51, 1.
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New procedures for evaluating thermal processes for foods in cylindrical containers, Nov. 53, 7.
New process sterilizes and seals cans aseptically, Jan. 51, 15.
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A simplified procedure for thermal process evaluation, May 53,15.
Some implications of recent theoretical work on canning processes, Aug. 52, 23.
Sterilizes can seams separately to cut hot-holding time, June 53, 23.

CHEMISTRY AND BIOCHEMISTRY, MISCELLANEOUS

The Amadori rearrangement under new conditions and its significance for non-enzymatic browning reactions, Apr. 53, 21.
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Biosynthesis and energy transport by enzymic reduction of "onium" salts, Sept. 53, 3.
The biosynthesis of squalene, Apr. 53, 13.
Effect of enforced exercise on myoglobin concentration in muscle, Oct. 53, 19.
The electrodialytic removal of inorganic material from organic marine products, Sept. 53, 3.
Enzyme inactivation, Sept. 53, 21.
The fate of trimethylamine oxide and trimethylamine in man, Oct. 53, 17.
Glucosulphatase activity in marine molluscs, Apr. 53, 21.
Highly purified squalene, Nov. 53, 21.
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Ribose and the Maillard reaction in fish muscle, June 53, 11.
The role of some enzymes from fish raw material in production of vitamin A, Dec. 53, 9.
Specificity of triamineoxidease, Oct. 53, 17.
Studies on the catalase in marine algae. Part I. On the catalase activity in marine algae, Sept. 53, 21.
Studies on myosin-adenosinetriphosphatase, Apr. 53, 21.
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The utilization of squalene in the biosynthesis of cholesterol, Apr. 53, 21.

CLAMS (see SHELLFISH AND CRUSTACEANS, MISCELLANEOUS - Clams)

COD FAMILY

General and miscellaneous

Alaska pollock: proximate composition; amino acid, thiamine, and riboflavin content; use as mink feed -- technical note no. 27, Dec. 53, 17.
Cod purse seining reported successful, Sept. 51, 11.
The flora of Arctic cod, Mar. 53, 3.
Fluctuations in the content of water and fat in the cod, Sept. 53, 19.
Lipides of pyloric caeca of cod (Gadus macrocephalus Tilesius), Apr. 53, 7.
Microorganisms from Atlantic cod, Sept. 52, 19.
New canned fishery products developed by Gloucester plant; Feb. 51, 1.
Norway boasts world's largest cod fisheries, July 52, 1.
The nutritive value of marine products. X. Proximate analysis of ling cod, July 53, 19.
Umbrella-type bag net for herring and cod, Sept. 51, 9.

Livers and liver oil

Atlantic cod liver oil, June 53, 5.
Cod liver and cod liver oil from Hornafjordur, Mar. 53, 19.
Preparation of cod liver oil by freezing, Feb. 53, 3.

Salt fish

How to determine if atmospheric conditions are favorable for the artificial drying of salted codfish, Nov. 53, 5.
Poulsbo: codfish center for 40 years, Mar. 51, 1.
Moisture curves for light-salted cod, Jan. 53, 9.
Salting codfish. I. Some considerations on heavy salted pickle fish, July 52, 19.
Salting codfish. II. Gaspe cure, Aug. 52, 1.
Salting codfish. III. A quantitative study of yields, Aug. 52, 1.

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COMPOSITION (see also ANALYSIS AND COMPOSITION)

COMPOSITION, INORGANIC

Biochemical studies on skipjack, Katsuwonus vagans -- II. Contents of inorganic substances in pyloric coeca, Nov. 53, 29.
The chemical constituents of the skeletal structure of shark, Feb. 52, 17.
Considerations on the safety of arsanilic acid for use in poultry feeds, June 53, 17.
Distribution of copper and zinc in the eyes of fresh-water fishes and frogs. Occurrence of metals in melanin fractions from eye tissues, Oct. 52, 25.
Focus on the chemical toxicology of arsenic. It's presence in crustacea and molluscs, Aug. 53, 9.
Iodine content of some marine algae, July 53, 25.
Nutritive values of British Columbia fishery products, June 52, 13.
The occurrence of cobalt in marine products, May 52, 13.
On the irritative odor emitted by Dilsea edulis, May 52, 25.
Physico-chemical studies on the skin and leather of marine animals--IV. On the water of shark skin, Nov. 53, 29.

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The presence of bismuth in fish bones and human teeth as revealed by the cathodo-luminescence method of analysis, Nov. 53, 29.
Some iron-containing sardine oils, Nov. 53, 29.
Titanium and zirconium in bloom of Gymnodinium brevis Davis, Dec. 53, 17.

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Alaska pollock: proximate composition; amino acid, thiamine, and riboflavin content; use as mink feed -- technical note no. 27, Dec. 53, 17.
The Alaska sheefish: description and proximate composition -- technical note no. 19, Aug. 52, 21.
Analysis of British Columbia ratfish, July 53, 5.
Analysis of "whole meal", Aug. 52, 9.
The extractives in fish muscle, Feb. 53, 1.
Fluctuations in the content of water and fat in the cod, Sept. 53, 19.
The nutritive value of marine products. VIII. Proximate analysis of canned British Columbia sockeye and pink salmon, July 53, 19.
The nutritive value of marine products. IX. Proximate analysis of British Columbia canned pilchard, July 53, 19.
The nutritive value of marine products. X. Proximate analysis of ling cod, July 53, 19.
The nutritive value of marine products. XI. Proximate analysis of canned British Columbia coho (blueback) salmon, July 53, 19.
The nutritive value of marine products. XV. Proximate analyses of canned British Columbia crabs, shrimps and clams, Aug. 52, 11.
Oysters and clams. Biochemical variations, June 53, 25.
Proximate composition of the classified trimmings from pink salmon -- technical note no. 18, Aug. 52, 15.
Seasonal variation in the chemical composition of mackerel (Rastrelliger kanagurta Russel), Sept. 51, 17.
Seaweed uses advancing through research, Dec. 52, 15.

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Acid-soluble pigments of molluscan shells. 5. Identity of some subsidiary fractions derived from Pinctada vulgaris, Jan. 51, 21.
Alcohol in a marine tube worm, Feb. 53, 29.
Amines in fish muscle. VI. Trimethylamine oxide content of fish and marine invertebrates, July 52, 9.
Arylsulphatase activity in marine molluscs, Nov. 52, 19.
Astaxanthin, cholesterol and lipins in developing salmon eggs, May 52, 11.
Biochemical studies on skipjack Katsuwonus vagans -- I. Chemical components of pyloric caeca and extractive matter, Feb. 53, 29.
The biochemistry of fish, Sept. 52, 7.
Chemical studies on the hokkigai-meat (Mactra sachalinesis Schrenck). I. On the proximate components of Mactra sachalinesis meat, Jan. 53, 29.
Chemical studies on marine algae. V. Organic bases in Porphyra pseudolinearis, Mar. 53, 29.
Chemical studies on the substances of fish smell -- oxidation products of piperidine, Apr. 53, 29.
The chemistry of fish-sperm nuclei, June 53, 25.
Choline content of certain feedstuffs, June 52, 1.
Composition of the desoxypentose nucleic acids of four genera of sea-urchin, July 52, 25.
Cypridina luciferin, June 52, 25.
The distribution of lecithin in the various parts of sardine (Sardina melanostica) body, Oct. 52, 25.
Environmental temperature and the glycogen content of the frog's liver, Oct. 52, 19.
Evidence of cyroplasmic deoxyribosides in the frog's egg, June 52, 25.
Fundamental examination for studies on fish meat. Part I. On the gravimetric constitution of fish body, Mar. 53, 29.
The insulin content of whale pancreas, July 53, 25.
The isolation of carcinogenic and other polycyclic aromatic hydrocarbons from barnacles, May 52, 25.
The isolation of n-octanol from a marine tube worm, Dec. 53, 5.
The non-protein nitrogenous constituents of fish and lobster muscle, Aug. 53, 19.

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The occurrence of trimethylamine and trimethylamine oxide in fresh water fishes, Mar. 53, 15.
Presence of ferritin in a marine elasmobranch, Oct. 52, 25.
Purple pigment and protein in the threads of the sea anemone, Adamsia rondeleti, Aug. 53, 13.
Salmon coloration of Salmo irideus on administration of astaxanthin, June 53, 25.
Seasonal variation in the chemical composition of mackerel (Rastrelliger kanagurta Russel), Mar. 53, 29.
Serological differentiation of fish bloods, Aug. 52, 25.
A simple linear relationship and definition of a unit for proteinase activity, Sept. 51, 17.
Some observations on factors affecting myoglobin concentrations in muscle, May 53, 21.
Squid rhodopsin, July 52, 25.
Studies on the lecithin in the pressed oil and cake of sardine prepared by the bailing-out process, Aug. 52, 25.
Studies on the manufacture of canned mackerel. Part I. Comparison of chemical components of meat of mackerel caught respectively in the Japan Sea and in the Pacific Ocean off the Hokkaido coast, Jan. 53, 29.
Studies on the substance of fish smell. IV. The components of mucilaginous substances of salmon caught at sea (add, that of eels), Mar. 53, 29.
Sulfur distribution in fish flesh proteins, Aug. 53, 17.
Whale processing. II. The composition of some whale liver extracts, Mar. 52, 13.

Oil and fat

Annual review of literature on fats, oils, and soaps. II, Nov. 53, 19.
Chalky halibut, Feb. 51, 17.
Glycerol yield from dogfish liver oil, Sept. 51, 5.
Humpback oil and the milk and milk fat from the sperm whale, Dec. 53, 5.
The lipids of fish. 1. Content and condition of lipids in the flesh of the haddock (Gadus aeglefinus), Aug. 53, 9.
The lipids of fish. 3. The acetone insoluble fraction of an acetone extract of the flesh of the haddock, Sept. 53, 13.
New Zealand fish oils. 6. Seasonal variations in the composition of New Zealand groper (Polyprion oxygeneios) liver oil, Oct. 53, 1.
Studies on mackerel: fat variations and certain biological aspects, July 52, 9.

Protein and amino acid

Amino acid content of dehydrated giant African snails (Achatina fulica Bowdich), Apr. 53, 29.
Amino-acid content of salmon roe -- technical note no. 25, July 53, 9.
Biochemical studies on skipjack (Katsuwonus vagans) -- III. On the nitrogen compounds in skipjack pyloric caeca extract, Sept. 53, 25.
Chemical studies on marine algae. IV. On the amino acids containing sulphur, Mar. 53, 29.
Chemical studies on the seaweeds. 2. On the amino acids of Ulva pertusa, Enteromorpha Linza, and Enteromorpha Linza var. crispata, Feb. 53, 29.
Chemical studies on the seaweeds. III. The nitrogen distribution of Porphyra by kinds and seasons, Mar. 53, 29.
The composition of the bulk proteins of Chlorella, May 52, 15.
The composition of the desoxyribonucleic acid of salmon sperm, Dec. 51, 15.
The content of connective tissue in fish muscles, May 52, 3.
The content of methionine, cystine, tyrosine, tryptophane, histidine and non-protein accessory substances in dried protein from freshwater fish, Jan. 53, 29.
A crystalline constituent from myogen of carp muscles, Sept. 52, 1.
D-amino-acid oxidase in the molluscan liver, Mar. 53, 29.
Evidence for a reversible equilibrium between actin, myosin and actomyosin, June 52, 5.
Extractives of fish muscle, Feb. 53, 19.
Meromyosins, the subunits of myosin, Dec. 53, 25.
Methionine contents of muscle proteins of various aquatic animals, Dec. 52, 25.
Nitrogenous extractives from fresh haddock muscle: fractionation with ion-exchange resins, Dec. 52, 25.
Non-protein amino acids in muscle and blood of marine and fresh water crustacea, Apr. 52, 9.
Non-protein nitrogen fractions of the flesh of lobsters and crab, Oct. 52, 13.

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Peptide structure and denaturation of proteins, Oct. 51, 17.
Preliminary observations on intraspecific variation of the levels of total protein in the sera of some decapod crustacea, Dec. 53, 27.
Setting phenomenon of fish muscle. I. Influence of electrolytes, Mar. 53, 5.
Structure of muscle. II. Arthropod muscles, Sept. 53, 25.
Studies on muscle of aquatic animals. 12. Distribution of extractive nitrogens in muscle of squids, Apr. 53, 29.
Studies on the proteins of fish skeletal muscle. 1. Electrophoretic analysis of codling extracts of low ionic strength, Aug. 53, 9.
Studies on the so-called toko-meat (membranous tissue of sperm oil). 1. The distribution of nitrogen in toko-meat, Mar. 53, 29.
Studies on whale blood. I. On the separation of histidine from whale blood, Dec. 51, 17.
An unknown amino-acid occurring in rock lobster (Jasus lalandii), Oct. 52, 9.

COMPOSITION, VITAMINS

B-complex vitamins

The B-vitamins of cod and haddock, Aug. 53, 1.
B vitamins in the organs of Norwegian herring, June 53, 9.
Content of vitamins in canned fish, Dec. 53, 27.
Meal and stickwater from fresh and stored herring, Oct. 53, 15.
Niacin content of tropical foods, Apr. 51, 25.
The nicotinic acid content of fish, Apr. 52, 9.
Nutritive value of fish from Michigan waters. II. Thiamine of lake herring, carp, common sucker, burbot, and smelt, Jan. 51, 19.
The value of whale-liver meal and whale meat meal as sources of the vitamin-B complex in the ration of farm animals, Oct. 52, 11.
Vitamins in stickwater, Sept. 53, 15.

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Alaska pollock: proximate composition; amino acid, thiamine, and riboflavin content; use as mink feed -- technical note no. 27, Dec. 53, 17.
Ascorbic acid of interrenal tissue of teleostean fishes, Dec. 53, 27.
Ascorbic acid and rhamnosides from sea water, Mar. 53, 15.
Determinations of free and bound ascorbic acid in fishery products, May 53, 19.
Examination of salps, Sept. 53, 13.
Examination of some components of cephalopod and sperm-whale liver oils by the chromatographic method, Sept. 53, 13.
Nutritive values of British Columbia fishery products, June 52, 13.
Occurrence of vitamin E in cod and other fish-liver oils, Oct. 53, 9.
Physiological studies on the vitamin C content of marine algae, May 52, 3.
Provitamin D_3 in tissues and the conversion of cholesterol to 7-dehydrocholesterol in vivo, July 52, 25.
Recent studies on vitamins, Aug. 51, 13.

Vitamin A

Atlantic cod liver oil, June 53, 5.
Cod liver and cod liver oil from Hornafjordur, Mar. 53, 19.
Content of vitamin A in basic commercial fish and seal of Volga-Caspian basin, Dec. 53, 27.
Content of vitamin A in fish of the Far East, Dec. 53, 27.
Distribution of vitamin A in the organs of marine crustacea, Mar. 52, 25.
The nutritive value of marine products. VII. The vitamin A and D potency of the oils from British Columbia canned salmon, Aug. 52, 13.
Preformed vitamin A in marine crustacea, Mar. 52, 25.
Studies on fluctuation of the vitamin A content in fishes -- I. Study on vitamin A in the dogfish (Squalus suckleyi), Nov. 53, 19.
Studies on fluctuation of the vitamin A content in fishes -- II. Study on vitamin A in sharks, Dec. 53, 27.
Study on vitamin A in the liver of aburazame Squalus suckleyi. IV. Seasonal variation of the vitamin A potency, Dec. 52, 25.

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Utilization of vitamin A in fish organs. IX. Distribution (3), Dec. 53, 27.
Vitamin A content of fish of Siberia, Dec. 53, 27.
Vitamin A potencies of liver oils of Bering Sea cod and flounder, May 51, 15.
Vitamin A in seals, Aug. 51, 25.

Vitamin B_{12}

Animal protein factor (APF) and vitamin B_{12} in marine products. I. Aquatic animals, Nov. 53, 17.
Animal protein factor (APF) and vitamin B_{12} in marine products. III. Seaweeds and others. IV. Variations in the vitamin B_{12} content of marine animals in spoilage, Nov. 53, 19.
The distribution of vitamin B_{12}-active substances in some marine invertebrates of British Columbia, Feb. 53, 1.
The nutritive value of fish meal and condensed fish solubles. V. The vitamin B_{12} content of herring meals, Aug. 52, 13.
Studies on the vitamin B_{12} of aquatic animals. I. The vitamin B_{12} content of fishes (1), Feb. 53, 1.
Studies on the vitamin B_{12} of aquatic animals. II. The vitamin B_{12} content of fish (2), Oct. 53, 15.
Studies on the vitamin B_{12} of aquatic animals. III. The vitamin B_{12} content of shell fish, Dec. 53, 27.
Uptake of radioactive cobalt and vitamin B_{12} by some marine algae, Nov. 52, 11.
The vitamin B_{12} content of certain fishery materials, July 53, 11.
Vitamin B_{12} content of soft- and hard-shell clams, Nov. 51, 13.
Vitamin B_{12} in marine invertebrates and seaweeds, Nov. 53, 19.

CONSERVATION

Dams and fish. Can they use the same stream?, Dec. 53, 29.
Experiments on the escape of undersized haddock through otter trawls, Jan. 53, 15.
Modern research on the Pacific salmon, Nov. 52, 25.
New method of killing oyster drills, Nov. 52, 9.
Predatory seals and the commercial fishing industry, Dec. 53, 29.

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CONTAINERS (see CANNED FISH - Containers; HANDLING FRESH FISH; FROZEN FISH - Packaging)

COOKERY

Adventures in "rockfish" cookery, Jan. 52, 15.
All-purpose fish sauce debuts, Dec. 53, 11.
Deep fat frying of breaded fish and shellfish, Dec. 53, 3.
Effect of cooking on the bacteriologic flora of selected frozen precooked foods, Jan. 52, 3.
Effect of internal temperature and of oven temperature on the cooking losses and the palatability of baked salmon steaks, July 52, 1.
Fish processing handbook for the Philippines, Dec. 51, 11.
"Fish fry" introduced, Mar. 52, 1.
Fatty acid contents of selected foods before and after cooking, Dec. 53, 9.
New canned fishery products developed by Gloucester plant, Feb. 51, 1.
Oyster cookery, Mar. 53, 23.
Physical changes of connective tissue of beef during heating, June 52, 15.
Pre-fried frozen shrimp in L. A. cases, Feb. 51, 23.
Preparation of salads with fish as a base, Nov. 53, 9.
School business is big business, Dec. 51, 11.
Selection of breader key to breading of seafoods, Oct. 52, 13.
To prepare fried fish, June 53, 1.
Tricks of my trade, Nov. 53, 23.
Use of fish in New England schools increased by demonstrations, Aug. 53, 5.
You can sell fish with fish cooking demonstrations!, Jan. 53, 1.

CRAB

Fishing for crab

The crab fishery off Graham Island, British Columbia, to 1948, May 52, 9.

Fishing for crab (Cont'd)

The Stephenson collapsible crab trap, July 53, 1.
The unpredictable blue crab fishery, Oct. 53, 21.

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Crab meat picking machine revealed, Oct. 51, 13.
Crabs fly south in paper bags, Mar. 52, 23.
The life of the commercial crab, Apr. 53, 23.
Non-protein nitrogen fractions of the flesh of lobsters and crab, Oct. 52, 13.
The nutritive value of marine products. XV. Proximate analyses of canned British Columbia crabs, shrimps and clams, Aug. 52, 11.
The synthetic crab shell goes nature one better, Feb. 51, 7.
Wealth of the northern seas, Feb. 51, 21.

Preservation, spoilage and processing

Biological methods of blood removal and their effectiveness in reducing discoloration in canned Dungeness crabmeat, Aug. 51, 1.
Black discoloration on Nass River crab, Dec. 53, 11.
Crab processing, Oct. 51, 19.
Freezing and cold storage of Pacific Northwest fish and shellfish. Part II - King crab, May 53, 3.
New method of processing, packing crabmeat, Nov. 52, 15.
Processing canned king and Dungeness crab meat, May 51, 19.

CRUSTACEANS (see SHELLFISH AND CRUSTACEANS, MISCELLANEOUS; CRAB; LOBSTER; SHRIMP)

DEHYDRATED FISH (see DRIED AND DEHYDRATED FISH)

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DOGFISH (see SHARKS; COMPOSITION, VITAMINS - Vitamin A in shark oils)

DRESSING FISH (see HANDLING FRESH FISH - Dressing and cutting)

DRIED AND DEHYDRATED FISH

Chemical and histological properties of dehydrated meat, Nov. 53, 5.
Comparison of low-temperature evaporators, Feb. 52, 23.
The drying of fish, Mar. 53, 7.
Fish handling and processing in Europe -- salting and drying cod and allied species, May 53, 17.
Freeze drying of foodstuffs, Jan. 52, 17.
Growth of bacteria associated with food poisoning experimentally inoculated into dehydrated meat, Sept. 51, 21.
How to determine if atmospheric conditions are favorable for the artificial drying of salted codfish, Nov. 53, 5.
Movable shelf retort dries fish quickly, July 51, 9.
A new experimental food factory, Dec. 51, 9.
Pilot scale freeze-drying of heat sensitive foods announced, Aug. 51, 23.
A preliminary report of the study on the drying of marine products by infra-red ray heating, Feb. 53, 27.
Principles of freeze-drying, Feb. 53, 27.
Putting seafood in the ration picture, Oct. 52, 11.
Salting and drying of stockfish, Apr. 53, 3.
Sea-food products in armed forces rations, May 53, 19.
Smoke curing and drying, Dec. 53, 7.
Studies on the application of infra-red ray lamps to fish drying, Dec. 52, 23.
Studies on bound water in fish meat muscle (III). IV. Estimation by the cobaltous chloride and by the electrical resistance methods of the amount of bound water in fish meat in various conditions, Dec. 52, 1.
Studies on the complete utilization of squid (Ommastrephes sloani pacificus). VI. Studies on the manufacture of "surume" (dried squid) (1). The cause and the method of prevention of so called "morning-burn" of "surume" (dried squid), Mar. 53, 25.
Studies on the manufacture of conservative marine food products. VIII. The preservative quality of a steamed-dried fish product, trade marked as "Uminohoshi", Dec. 52, 23.
Studies on the manufacture of conservative marine food products. IX. On the manufacture of pressed-dried fish, Mar. 53, 23.
To dehydrate cooked shrimp, Nov. 52, 23.

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Top-quality drying in a flash, Sept. 52, 13.
Water, microorganisms and volatile bases in dehydrated fish, Sept. 51, 9.

ECONOMICS AND STATISTICS

The biochemistry of fish, Sept. 52, 7.
Canadian fisheries production, 1951, Aug. 52, 25.
Canadians eating more fresh fish, May 51, 17.
Economic aspects of the fishing industry, May 51, 7.
Estimates of world catches by species groups and by utilization, Aug. 52, 17.
Fisheries report for the year 1951 (Denmark), Apr. 53, 7.
Fishery by-products in 1950, Oct. 51, 15.
Japan's fish liver and oil industry, Sept. 51, 13.
Natural resources from the sea and soil, Mar. 53, 29.
Preliminary review of the fisheries of the United States, 1950, Oct. 51, 25.
Preliminary review of the fisheries of the United States, 1951, July 52, 11.
Recent growth of U. S. fishing fleet, Aug. 53, 15.
Yearbook of fisheries statistics (1948-1949), Sept. 51, 19.
Yearbook of fisheries statistics 1950-51, Dec. 53, 29.

EQUIPMENT (see also APPARATUS AND EQUIPMENT, LABORATORY AND PLANT, CANNED FISH, PROCESSING - Machines and equipment; FROZEN FISH, PROCESSING - Freezing equipment; FROZEN FISH, PACKAGING - Machines for packaging; HANDLING FRESH FISH - Hoists, unloading pumps and dock equipment - Miscellaneous handling equipment; SMOKED FISH - Smokehouses and other equipment)

EQUIPMENT, FISHING VESSEL

General and miscellaneous

The active rudder, Aug. 53, 15.
Brailing trap salmon by pump is tried, Jan. 53, 25.
Care of main bearings, Mar. 52, 23.
The corrosion of mild steel moving rapidly in salt solutions and natural waters, Oct. 53, 5.
Diesel lubrication on fishing boats, Jan. 52, 23.
Diffusion of sodium chloride through various paint systems, May 52, 23
Drinking water from sea water, Dec. 51, 1.
Five-blade propeller, Apr. 53, 11.
How protective coatings fight corrosion, May 53, 23.
Loading pump sets record of more than 1,000,000 live fish per hour, Nov. 53, 23.
New method for killing oyster drills, Nov. 52, 9.
New power roll arouses interest of gillnetters, May 52, 21.
New system of portable wet tanks stops lobster losses, Oct. 52, 17.
Norwegian automatic baiting machine proves successful, Oct. 53, 23.
No single alloy meets all sea water corrosion problems, Sept. 53, 15.
Patent filed on keeping shrimp, Oct. 52, 11.
Pen construction for refrigerated fish holds, July 53, 15.
A practical mechanical oyster dredger, Oct. 53, 1.
Pumping live fish simplifies problem of bait handling aboard clipper, Sept. 53, 19.
Rusting prevented by use of "inhibited salt", Sept. 53, 15.
Selection and handling of anchors, Mar. 51, 23.
Ship insulation, Aug. 51, 19.
Tests on the protective value of metallic coatings in marine (sheltered) atmospheres, Oct. 52, 5.
Tests of the protective value of metallic coatings under sheltered conditions (marine atmosphere), Sept. 53, 11.
Towards efficiency in fishing vessel propulsion, Aug. 52, 21.
The turbo-trochoidal propeller, Aug. 52, 17.
Underwater camera used to photograph oysters, Apr. 53 11.
Underwater observation and photography of flow phenomena through glass panels in a ship's hull, Oct. 52, 19.
Underwater television in fisheries research, Apr. 53, 25.
Woods Hole men photograph ocean floor off Nantucket shoals, Apr. 53, 25.

Hoists and winches

Captain Jones' new trawl hauler, May 51, 1.
Electric trolling switch, July 52, 21.
Nova Scotia long liner pioneers new hydraulic gurdy, Aug. 52, 15.
Winches for fishermen, Jan. 51, 21.
Winches on fishing boats, Feb. 53, 25.

Marine engines and refrigeration

Absorption refrigeration in the fishing industry, Feb. 53, 5.
The case of refrigerated boats, May 53, 23.
Claim work boat flexibility increased by hydrojet propulsion, June 53, 13.
Development of improved freezing plant for freezing at sea, May 52, 17.
Freezing fish at sea -- New England. Part 6 - Changes and additions to experimental equipment on the trawler Delaware, Aug. 53, 23.
Gears and their functions, Jan. 51, 21.
Ice-holding refrigeration solves operating problems of halibut-salmon-albacore vessels, Jan. 52, 3.
Insulation pointers, Apr. 52, 11.
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Vitamin and other concentrates, Nov. 51, 1.

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The value of fish products in feed formulation, Jan. 51, 11.

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Whither fishmeal?, Mar. 53, 27.

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The amazing fish meal industry, Aug. 51, 13.
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The attitude of feed nutritionists and agriculture research workers toward fishery feed products, Sept. 53, 5.
Benefit of doubt, Dec. 51, 5.
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Trichloroethylene, May 53, 9.

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The problems of heat injury to dietary protein, July 53, 3.
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Texas meeting includes talks on feed efficiency, protein saving, Mar. 53, 27.

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Can the smell from herring meal plants be avoided?, Dec. 53, 21.
Odor elimination process is simple, ingenious, Oct. 51, 9.
Odorless fish reduction, Sept. 51, 25.

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The effect of drying temperatures on the folic acid content of herring meal, Nov. 52, 17.
Evaporation of stickwater in a heat exchanger, June 53, 5.
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Report from the experimental plant. III. Evaporation of stickwater in a spray evaporator, June 53, 17.
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First use of solexol process in processing fish oils planned in Norway, Feb. 52, 19.
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"Wet steam" upgrades fish oil, July 53, 7.

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"King" menhaden, Sept. 52, 5.
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The manufacture of white fish meal in Great Britain, May 53, 25.
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Recovery of waste-soluble nutritional factors from fish livers, May 51, 17.
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Suggested code for fish meal, Sept. 51, 11.
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Trash fishing highlights New England's production season, July 51, 15.
Trichloroethylene, May 53, 9.
Utilization of freshwater fish, trimmings and offal, Feb. 52, 5.
Utilizing waste fish resulting from the shrimping industry, Apr. 51, 11.
A westward shift in (menhaden) operations in southern waters, July 51, 15.
Whole meal, May 53, 25.

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Alkaline hydrolysis of fish proteins, Jan. 53, 29.
Centrifuging's big strides, Mar. 51, 3.
Coagulating agents. Calcium chloride and formalin, Sept. 53, 17.
Coagulating agents for use in herring reduction: calcium chloride-formalin, Aug. 52, 17.
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Heat inactivation of the basic amino acids and tryptophan, Feb. 52, 5.

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New reduction processes, Mar. 51, 11.
Recovery of oil and meal from oil-bearing fish, Nov. 53, 27.
Report from the experimental plant. II. Indirect cooking, Aug. 53, 25.
Small scale manufacture of fish meal, Sept. 53, 23.
The use of impregnated paper bags preventing heating of herring meal, Aug. 52, 7.
The utilization of surplus herring for the production of oil and of a protein feeding-stuff by the process of alkali digestion, Nov. 52, 13.

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Conservation

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Florida's red tide treated with copper sulphate, Apr. 53, 29.
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A century of American fish culture, 1853-1953, Dec. 53, 29.
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The feeding of cooked carp to hatchery trout in Colorado, Dec. 51, 19.
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Hints for successful oyster culture, Apr. 53, 23.
Lake Erie yield affected by plankton supply, Jan. 51, 23.
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Marine biology courses offered at high school level in Tidewater (Virginia), Oct. 51, 25.
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Reactions of the porpoise to ultrasonic frequencies, Jan. 53, 29.

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Studying the eggs and young of fish, Apr. 53, 29.
Tuna Commission studies the bait fishes, May 53, 1.
Tuna marking, a progress report, Dec. 53, 29.
What do whales eat?, Jan. 51, 23.

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Electric tuna fishing, Jan. 53, 1.
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Electrical-fishing experiments in salt water reported successful, Mar. 53, 21.
Electrical method of killing whales (1), Oct. 52, 21.
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British Columbia Indian fishery, Feb. 52, 9.
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How snoek is caught, Oct. 52, 1.
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The troll fishery of British Columbia, Nov. 53, 23.
A war time fishery, Aug. 52, 13.

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Drift-net fishing for herring, July 51, 5.
Modern salmon gill net operators, Nov. 51, 15.
Pacific salmon drift gill netting, Aug. 51, 9.
Proper management of gill nets, Sept. 51, 17.
The relationship of fishing efforts by gill nets to the interval between lifts, Apr. 52, 3.

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Cod purse seining reported successful, Sept. 51, 11.
Danish seining, Dec. 53, 17.
New method pays off for Nova Scotia fishermen, Aug. 52, 7.

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Modern scallop production, Dec. 52, 13.
"Vivian Fay" uses airplane scallop drag, July 51, 5.

Trawling

The British Columbia trawl fishery, Sept. 52, 3.
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Japanese offshore trawling, Aug. 51, 21.
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Trawling for Bay of Fundy sardines, Sept. 52, 15.

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Distribution of catches of tuna long line--III. Swimming depth, July 53, 23.
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Gloucester draggers catching tuna fish on hand lines, Jan. 52, 23.
The Japanese long-line fishery for tunas, May 51, 13.
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X. The availability of fish attraction lamp in the various fisheries, Apr. 53, 25.
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The lure of light, Aug. 52, 7.
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"Chalky" halibut, II., Feb. 52, 3.
The 1952 Pacific halibut fishery, May 53, 23.
A stake in steaks, Mar. 53, 11.
Uniform, circular steaks cut from fish cylinder, Oct. 52, 15.

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Fishy flavours, Mar. 53, 1.
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California canning industry requested not to use subtilin in food preservation, Feb. 51, 9.
Canning with antibiotics, Jan. 51, 15.
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Effect of subtilin on spoilage of thermal processed beef, Jan. 53, 21.
Fundamentals of freeze-concentration of liquids, Oct. 51, 11.
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Browning of salt fish, Mar. 53, 5.
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FRESHNESS OF FISH

Freshness and quality

Chemical studies on the freshness of whale meat, Part I, Dec. 51, 13.
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Relative importance of the factors causing spoilage of fish in boats at sea, July 53, 7.

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The efficacy of bactericidal ice in the preservation of sea fish, July 53, 15.

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Assessment of quality, Oct. 53, 9.
The biochemistry of fish, Sept. 52, 7.
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Indole as an index of decomposition in Dungeness crab, Jan. 53, 19.
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Board extends investigations, Feb. 51, 17.
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The freezing and cold storage of herrings, Mar. 53, 7.
The freezing and storage of oysters, Feb. 51, 17.
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Frozen cream of lobster soup launched in New England market, July 52, 23.
Frozen seafood items spotlighted at show, Sept. 53, 1.
Introduce packaged herring fillets, Aug. 53, 23.
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Research on frozen fish in Norway, June 51, 7.
Some cold storage practices in Canada with particular reference to jacketed holding rooms, Mar. 52, 9.

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Dry ice refrigerant in truck transportation holds temperature constant throughout cargo, Jan. 52, 5.
Dry ice refrigeration for truck trailer, Nov. 53, 11.
Mechanical refrigeration in the transportation of perishable food, June 52, 11.

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A survey of times and temperatures in the transportation, storage and distribution of frozen foods, Dec. 53, 7.
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Paper protects frozen fish in storage, Mar. 52, 5.
"Pink yeast" isolated from oysters grows at temperatures below freezing, Mar. 51, 19.
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The refrigeration of Gulf shrimp -- cause, prevention of black spot, June 51, 3.
Whalemeat, Dec. 52, 11.

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The freezing of herrings, June 52, 3.
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Research in refrigerated storage, Aug. 51, 11.
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Survival of microorganisms in frozen meat, Jan. 51, 9.
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Vitamin losses in drip obtained upon defrosting frozen meat, June 51, 23.

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California requires freezing date on packaged fish, May 51, 19.
Effect of methods of protection on palatability of freezer-stored meat, Oct. 51, 5.
Fish industry seen converting to one pound frozen packages, Aug. 51, 7.
Flavor factors in frozen-food wraps, Oct. 51, 13.
Improved packaging in the era of eye appeal, Aug. 51, 17.
Inert gas: safeguard of quality, May 52, 23.
Package hygrometers, June 53, 23.
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Prefab meats tap new market, Dec. 51, 1.
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Seafood a la color, Sept. 51, 13.
Seafood packer uses individual dip method, Aug. 51, 1.

Machines for packaging

Automatic machine vacuumizes, seals prepacked plastic film bags, Jan. 52, 17.
Heat-sealing apparatus for frozen food cartons, Sept. 51, 23.
Radiant heat beam seals polyethylene bags, Nov. 51, 9.

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Block freezing of bait in alginate gelatin, Oct. 53, 23.
Freezing of rock lobster, Apr. 53, 1.
Glazing brine-frozen salmon -- technical note no. 26, Sept. 53, 15.
Ground fillet offal frozen in paper bags for fur feeding, Jan. 52, 19.
An improved method of glazing fish for locker storage, Mar. 51, 15.
Individually wrapped sword fish and frogs legs now ready for retail markets, Mar. 51, 23.
Packaging tests of glazed and unglazed shrimp, Mar. 53, 17.
Results of some tests with frozen oysters, Apr. 52, 21.
Whalemeat, Dec. 52, 11.

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Antioxidants in packaging film protects contents, Aug. 53, 11.
Apparatus for measuring gas permeability of sheet materials, June 53, 23.
Boston firm solves packaging problem, Oct. 53, 7.
Cellophane -- its place in fish packaging, Oct. 52, 15.
DuPont announces neoprene paper, predicts strong insulated bags, Nov. 51, 19.

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Frozen food in cans, Oct. 52, 23.
Gas permeability of films, Dec. 52, 3.
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Norwegians endorse aluminum foil, Mar. 52, 5.
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Paper cup containers, Nov. 53, 7.
Plastics properties at low temperatures, Sept. 53, 23.
The use of vegetable parchment in packaging fishery products, Dec. 53, 15.
Wraps may obsolete glazing, Oct. 52, 5.

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Fillet breading now mechanized, Jan. 52, 5.
Frozen fish in new form and tailored sizes, June 53, 17.
High labor costs, waste eliminated by mechanized breading of oysters, Sept. 53, 11.
New breading machine, June 53, 23.
Packing frozen fried oysters, May 52, 23.
Pre-fried frozen shrimp in L. A. cases, Feb. 51, 23.
To prepare fried fish, June 53, 1.
Ready market seen for breaded fish, Dec. 51, 9.
Selection of breader key to breading of seafoods, Oct. 52, 13.
Sweden tries new fish packaging and merchandising method, Nov. 52, 21.

Equipment for freezing

Absorption refrigeration in the fishing industry, Feb. 53, 5.
An air blast freezer for research, Oct. 53, 7.
Duration of freezing and refrigeration requirement for two-sided freezing of fish fillets, Aug. 53, 23.
Equipment and procedure for thawing fish frozen at sea -- technical note no. 21, Nov. 52, 15.
Fish continuously frozen in towers, June 51, 11.
Flash freezing techniques improve seafoods, Nov. 51, 23.
Improved "no frost" equipment, Oct. 51, 23.
Modern packaging department, July 51, 11.
A new liquid medium for freezing round fish -- technical note no. 22, Apr. 53, 17.
Quicker-than-quick freeze, Jan. 53, 17.

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Cooling problems in fishing vessels, Mar. 53, 21.
Development of improved freezing plant for freezing at sea, May 52, 17.
Freezing British Columbia fish at sea, Mar. 53, 9.
Freezing fish at sea, Sept. 51, 7.
Freezing fish at sea, Oct. 53, 3.
Freezing fish at sea -- New England. Part 4 - Commercial processing of brine-frozen fish, July 52, 17.
Freezing fish at sea -- New England. Part 5 - Freezing and thawing studies and suggestions for commercial equipment, May 53, 7.
Freezing fish at sea -- New England. Part 6 - Changes and additions to experimental equipment on the trawler Delaware, Aug. 53, 23.
Freezing at sea, Jan. 53, 9.
Freezing shrimp at sea, Nov. 52, 11.
The preservation of white fish at sea, Apr. 52, 3.
Quick freezes and cartons shrimp at sea, Aug. 53, 5.
Studies on round fish frozen at sea, New England species, Mar. 52, 13.
Trawler freezing, July 52, 23.

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Abalone patties -- breaded and frozen, Aug. 51, 11.
The freezing and cold storage of lobsters, Apr. 51, 13.
Freezing and cold storage of Pacific Northwest fish and shellfish. Part II -- King crab, May 53, 3.
The freezing of kippers, June 51, 1.
Lobsters pre-heated before freezing, Feb. 51, 3.
No-smear meat sawing may be applied to fish -- Fishery Note No. 37, Aug. 53, 5.
The quick freezing of kippers, Jan. 51, 7.
Results of some tests with frozen oysters, Mar. 52, 9.
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Cold storage development--power consumption--efficiency, Apr. 52, 21.
Condensation on refrigerated surfaces, Jan. 52, 17.
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How they process quick-frozen trout, Apr. 51, 13.
Improving food freezing operations, Jan. 51, 19.
Meat content varies in frozen shrimp packages, Jan. 53, 17.
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Ultra modern fish processing plant, Sept. 53, 11.

Humidity and temperature control

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The control of the moisture content of air, May 52, 23.
Humidity in cold storages, Oct. 53, 7.

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Brooklyn storage lines freezer rooms with aluminum foil, May 52, 11.
Cold store drains, June 52, 23.
The use of aerated concrete for cold storage insulation, Apr. 53, 27.

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Brine freezing of fish, July 53, 5.
Freezing process uses glycerin-alcohol bath, Sept. 51, 5.
New frozen food shipper cuts delivery costs 35 percent, June 51, 9.
Uniform, circular steaks cut from fish cylinder, Oct. 52, 15.

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Efficiency of lines versus otter trawls, Jan. 51, 25.
The gear development program of the M-V Oregon, Jan. 53, 1.
Guide to the classification of fishing gear in the Philippines, May 51, 9.
An outline of California fishing gear, Mar. 52, 23.

Lines

Aluminum poles for fishing, Mar. 52, 23.
Commercial salmon trolling, July 51, 19.
Gloucester draggers catching tuna fish on hand lines, Jan. 52, 23.
How to rig tuna fishing gear, Jan. 52, 23.
Ice fishing on Lake Erie, June 51, 9.
New device "feels" when fish strikes hook, Sept. 53, 11.
Nova Scotia long liner pioneers new hydraulic gurdy, Aug. 52, 15.
Snagline method used to catch spoonbills on unbaited hooks, Apr. 52, 11.

Miscellaneous mechanical and electrical devices

Electric tuna fishing, Jan. 53, 1.
Electric whaling, Sept. 52, 3.
Electrically-lighted jig, Oct. 51, 3.
Experiments with a "fish pump", July 53, 15.
German Federal Republic catching tuna with electrified hooks, Jan. 52, 3.
Improved type of radio buoy for fisheries, Jan. 51, 13.
Method for electric catching of salt-water fish, Apr. 52, 11.
New electric fishing reels, Oct. 51, 17.
Studies on the ecology of the New Zealand freshwater eels. I. The design and use of an electric fishing machine, Apr. 53, 25.

Netting material

Norway tests nylon nets for herring fishing, Nov. 52, 21.
Nylon fishing nets, Dec. 52, 17.
Resistance of plane net against flow of water. I. Effect of knot type on the resistance of net, Sept. 52, 21.
Resistance of plane net against the flow of water. II. Effect of different shapes of the mesh upon the resistance of net against the flow, Oct. 53, 21.
Study on the netting cord. On the properties of synthetic-fiber. I., Sept. 53, 21.
Study of nylon and cotton gill-nets, Oct. 52, 23.
Swedish experiments with nylon fishing nets, Feb. 53, 13.

Preservation of gear

An experiment on the preservation of netting cord, Jan. 53, 23.
Fishing gear preservatives for Philippine waters, June 51, 3.
Net preservatives, Jan. 52, 15.
On the efficacy of net preservatives, Jan. 53. 23,
On the efficacy of net preservatives (3), Jan. 53, 23.
Studies on fish net preservation by copper sulphate. I. A simple determination of copper sulphate, Jan. 53, 23.
Studies on the preservation of netting cord by chlorinated substance of coaltar constituents (preliminary report), June 53, 21.

Seines, nets and traps

Buoyancy of wood traps causes losses, Jan. 52, 3.
Chain "leadlines" enter purse seine fishery working sardines and tuna, Apr. 51, 17.
Danish fishing captain constructs new type of tuna net, Jan. 51, 21.
Danish seining, Dec. 53, 17.
Drum seining -- new generation of pioneers seeks mechanized fishing, Oct. 53, 13.
Fundamental studies on spherical glass floats for fishing nets (preliminary report), Jan. 53, 25.
XI. Investigation on the practical value of knotless nets, Apr. 53, 25.
Model experiments on trap net for sardine and square pound net for herring, June 53, 21.
Modern salmon gill net operations, Nov. 51, 15.
New spongex seine float, July 52, 1.
On the experimental study how the fishes pass through the mesh of various shortening nets--I, Oct. 53, 21.
Proper management of gill nets, Sept. 51, 17.
Recent changes in purse seine gear in California, May 52, 21.
The relationship of fishing efforts by gill nets to the interval between lifts, Apr. 52, 3.
Safety net for purse-seine catches, Jan. 51, 21.
Umbrella-type bag net for herring and cod, Sept. 51, 9.
Underwater photography of the seine net whilst fishing, May 53, 23.

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Digby scallops, Nov. 51, 19.
Experimenting with new scallop net, July 52, 21.
The John N. Cobb's shellfish explorations in certain Southeastern Alaskan waters, Spring 1951, Sept. 52, 1.

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Modification of drags to protect small scallops, Sept. 52, 17.
The relative toxicity of certain metals to lobsters, Sept. 52, 23.
The Stephenson collapsible crab trap, July 53, 1.
"Vivian Fay" uses airplane scallop drag, July 51, 5.
Wire and rubber lobster trap, Jan. 51, 21.

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Bottomless "kite" trawl, May 52, 15.
The British Columbia trawl fishery, Sept. 52, 3.
California develops new mid-water trawl, Nov. 53, 3.
Comparative studies of trawl behavior by underwater observation, Oct. 52, 17.
"Danish trawl" in British Columbia, Apr. 52, 11.
Experiments on the escape of undersized haddock through otter trawls, Jan. 53, 15.
Gulf of Mexico shrimp trawl designs, Mar. 52, 23.
Increasing the spread of shrimp trawls, Dec. 52, 17.
Model experiments on a tesio-hikiami (trawl net), Sept. 53, 21.
Model experiments on trawl nets of various types, Oct. 53, 21.
More flexible balloons, Mar. 52, 7.
Net sled developed, Jan. 52, 13.
New method pays off for Nova Scotia fishermen, Aug. 52, 7.
Observations on use of trawling wire on Georges Bank, Apr. 53, 25.
Pattern for a large Gulf trawl, Mar. 51, 23.
"Phantom" pelagic trawl, Apr. 53, 11.
Preliminary experiments to determine the working gape of trawling gear, Jan. 53, 15.
Releasing small fish and shrimp from trawl nets, Jan. 51, 1.
Some conclusions from underwater observation of trawl behavior, Nov. 52, 9.
Study on fishing trawl operated in any depth of sea-water, Jan. 53, 25.
A study on fishing trawl operated in any depth of sea water (continued). On the relations between the length of warp and the frontage of otter-board, Jan. 53, 25.
Trawling for Bay of Fundy sardines, Sept. 52, 15.
Trawling ski, Nov. 53, 3.
Underwater research on behavior of the otter trawl, Mar. 52, 17.
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What's the word from the "Antillas"?, Jan. 53, 15.

GRAYFISH (see SHARKS)

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HANDLING FRESH FISH (see also TRANSPORTATION; FRESHNESS OF FISH; SPOILAGE)

HANDLING FRESH FISH

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Black discoloration on Nass River crab, Dec. 53, 11.
Fish handling and processing in Europe, May 53, 13.
Fish handling and processing in U. K. --Part IV, Feb. 53, 11.
Fresh stockfish, Mar. 53, 15.
Quality of fish in the Ottawa retail stores, Apr. 51, 5.
The Torry Research Station, May 52, 5.

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Competitive quality begins on the boat, Nov. 53, 9.
Correct storage temperatures, Mar. 51, 5.
The effect of storage on indicator organisms in shucked oysters and a comparison of methods for the determination of enterococci, Feb. 52, 7.
Factors in distribution affecting the quality of fish, Apr. 51, 5.
Fillets, New England's greatest contribution to modern merchandising and sales, July 51, 5.
Fish dealers deluxe, Feb. 51, 15.
Good handling helps to keep competitive, Nov. 53, 3.
Handling troll salmon -- Fishery Note No. 36, Aug. 53, 3.
The influence and control of temperature, May 52, 5.
The influence of the depth of stowage, May 52, 5.
The influence of exposure on deck and general practice in the industry in relation to quality, May 52, 19.
A jacketed display cabinet for controlling temperature and humidity to retain quality, Apr. 52, 17.
New ideas are being tried in floating fish factory, Jan. 51, 9.
The preservation of white fish at sea, Feb. 52, 13.
Prevention of fish deterioration, Mar. 52, 17.
Quality control program builds confidence, July 53, 15.
Quality of fresh and frozen fish and facilities for freezing, storing and transporting fishery products, May 51, 5.
Rail transportation of perishable foodstuffs, Mar. 53, 23.
Recent advances in methods of handling. Preservation processing, and distribution of fish. Developments in utilization, new products and by-products, May 51, 7.
A refrigerated display cabinet for fishery products, Apr. 53, 25.
Scientific design assures sanitary fish holds, Dec. 53, 15.
Transport and shipping, Oct. 53, 5.

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Contaminated ice in the boats at sea, July 53, 11.
Cooling by circulation of freshwater in fish cutter operation, Apr. 53, 25.
Cooling problems in fishing vessels, Mar. 53, 21.
Displaying fresh meat with ice, Oct. 51, 3.
The efficacy of bactericidal ice in the preservation of sea fish, July 53, 15.
Germicides for fish, Apr. 52, 13.
Ice -- a must for fresh fish, Feb. 51, 5.
Preservation of fish by the use of nitrite ice, Apr. 51, 13.
Production of carbon dioxide by fish stowed in ice, Feb. 53, 19.
Now it's "cold" dogs, Nov. 52, 19.
Packer attains complete icing control, Feb. 51, 19.
Recent experiments show value of flaked frozen salt water ribbons, Nov. 53, 13.
Refrigerated display (Great Britain), Sept. 51, 3.
Research on icing fish, June 53, 7.
Substances added to ice for keeping fish fresh, Nov. 53, 7.
Use of chilled sea water in place of ice in transporting fish, Dec. 53, 3.

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Crab meat picking machine revealed, Oct. 51, 13.
Fillet breading now mechanized, Jan. 52, 5.
Herring processing machinery, Mar. 53, 11.
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Bacteriological studies on shrimp, Feb. 53, 13.
The bacteriology of Gulf Coast shrimp. IV. Bacteriological, chemical, and organoleptic changes with ice storage, June 52, 17.
Breakage -- the bug-bear in clam handling, Feb. 53, 25.
Cellophane-wrapped live lobster, Feb. 51, 21.

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Indices of pollution in oysters, Nov. 51, 11.
Low cost tank holds lobsters weeks in artificial sea water, June 53, 11.
A new shrimp grading machine, June 52, 3.
Problems in handling fresh and frozen shrimp, Jan. 51, 5.
Recovery and palatability of different species of shrimp after cooking, Mar. 53, 17.
Refrigerated sea water preserves shrimp in Florida experiments, June 52, 19.
Repeated re-use of sea water as a medium for the functioning and self-cleaning of molluscan shellfish, May 53, 23.
Shell-fish for human consumption. Part I., June 53, 7.
Shell-fish for human consumption. Part II., July 53, 17.
Shrimp processing, Apr. 52, 15.
Single-stroke shrimp cleaner, July 52, 23.
Studies on the method of gathering shell-meats from shell-fish. Part 3. On various improved methods of chemical shucking and a new method of opening (high temperature process), Nov. 53, 23.
What the Shrimp Association of the Americas is doing to promote quality control, Aug. 52, 7.

Spoilage and preservation by cold

Bacterial fish spoilage and its control, Mar. 51, 11.
Factors in distribution affecting the quality of fish, Mar. 52, 7.
Freezing fish at sea, Apr. 52, 3.
Improvement of quality of chilled fish. Influence and control of temperature, Dec. 52, 9.
Improvement of quality of chilled fish. Influence of stowage on quality and storage in carbon dioxide, Dec. 52, 9.
Improvement of quality of iced fish, Feb. 53, 5.
Preservation of fish by chilling, Mar. 51, 7.
The preservation of fresh herring, Apr. 51, 15.
Relative importance of the factors causing spoilage of fish in boats at sea, July 53, 7.
Report from the experimental plant. IV. The keeping quality of washed herring, May 53, 23.

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Fatty acid composition of fish oils. II. Herring oil, July 53, 5.
Meal and stickwater from fresh and stored herring, Oct. 53, 15.
Method developed for utilization of all stickwater in herring meal production, Apr. 52, 7.
The nutritive value of fish meal and condensed fish solubles. IV. A comparison of herring meals made by drying herring press cake commercially and experimentally at a lower temperature, Dec. 52, 1.
The production of herring oil, Mar. 51, 11.

Composition and freshness

The application of the thiobarbituric acid test to the determination of oxidative rancidity in frozen herring, Nov. 53, 17.
B vitamins in the organs of Norwegian herring, June 53, 9.
Contribution to methods for absolute fat determination in foods, especially in herring, Dec. 53, 13.

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Drift-net fishing for herring, July 51, 5.
Reactions of herrings, sprats and pilchards to light, Feb. 53, 17.
Umbrella-type bag net for herring and cod, Sept. 51, 9.

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Food preservation research in the United Kingdom. X. Herring Industry Board program, Sept. 52, 19.
The herring, alewife and shad, Feb. 53, 23.
Herring Industry Board. Sixteenth Annual Report for the year ended 31st March, 1952, June 53, 25.

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Maine's herring fishery, May 52, 17.
Survey of the British herring industry, May 51, 7.
The technology of herring utilization, Dec. 53, 5.

Preservation and processing

Analyses of British Columbia salt herring, Mar. 53, 7.
Dry salting and canning of herring in British Columbia, Apr. 51, 9.
Efficient herring preservative developed, Aug. 52, 1.
Experimental salting of herring, July 53, 25.
Fish handling and processing in Europe -- canning brisling and sild, Aug. 53, 7.
Fish handling and processing in Europe -- marinating, Aug. 53, 11.
Freezing and cold storage of herring, Apr. 51, 3.
The freezing and cold storage of herrings, Mar. 53, 7.
The freezing of herrings, June 52, 3.
Herring canning, July 51, 11.
Herring processing machinery, Mar. 53, 11.
Hot smoking of herring, July 51, 9.
Mechanical brining for salt herring, Aug. 51, 5.
New Swedish herring filleting machine, July 53, 1.
Pickled herring processing, Nov. 52, 15.
The preparation of canned whole herring, Feb. 53, 25.
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Preservation of herring, July 53, 17.
Rancidity in cold stored herrings, May 52, 15.
Report from the experimental plant. IV. The keeping quality of washed herring, May 53, 23.
Salt and salt-sugar-spice curing of fladen ground herring, Dec. 52, 11.
Salted and spiced herring, Aug. 51, 5.

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Fish and rock lobster meals, Feb. 52, 17.
The freezing and cold storage of lobsters, Apr. 51, 13.
Freezing of rock lobster, Apr. 53, 1.
Frozen cooked lobsters retain fresh qualities, May 52, 7.
Hingham man develops bait keeper to cut costs by 60 percent, Dec. 52, 21.
Lobster soup made from ground bodies, shells, Oct. 52, 17.
Lobsters pre-heated before freezing, Feb. 51, 3.
Low cost tank holds lobsters weeks in artificial sea water, June 53, 11.
New lobster association, Dec. 51, 19.
New system of portable wet tanks stops lobster losses, Oct. 52, 17.
Non-protein nitrogen fractions of the flesh of lobsters and crab, Oct. 52, 13.
The relative toxicity of certain metals to lobsters, Sept. 52, 23.
Results of some tests with frozen lobsters and lobster meat, Mar. 51, 9.
Rock lobster canning, Apr. 53, 1.
South African fish products. XXXIII. The rock lobster: the composition of the hepatopancreas oil, May 53, 9.

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Struvite formation and brown discoloration in canned rock lobster, Jan. 52, 7.
Study ocean "pastures", Oct. 51, 21.
United Kingdom will freeze more lobsters, Sept. 51, 21.
An unknown amino-acid occurring in rock lobster (Jasus lalandii), Oct. 52, 9.
Wire and rubber lobster trap, Jan. 51, 21.

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The decline of the Pacific mackerel fishery, Oct. 52, 19.
The jack mackerel, Trachurus symmetricus: a review of the California fishery and of current biological knowledge, Apr. 53, 23.
Mackerel air scouting pays purse seiners, Oct. 52, 19.
Report on Pacific Coast mackerel, sardine and tuna, Oct. 52, 5.
A review of the Pacific mackerel (Pneumatorphorus diego) fishery of the Los Angeles region with special reference to the years 1939-1951, Aug. 52, 19.
Seasonal variation in the chemical composition of mackerel (Rastrelliger kanagurta Russel), Sept. 51, 17.
Studies on mackerel: fat variations-and certain biological aspects, July 52, 9.

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The electrodialytic removal of inorganic material from organic marine products, Sept. 53, 3.
Florida "finger" sponges may provide new industry, Jan. 52, 11.
Marine Products of Commerce (second edition), July 51, 17.
Studies on the methods for analyzing the chemical components of seaweeds, Mar. 53, 27.

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The agar industry of today, June 52, 5.
The composition of the bulk proteins of Chlorella, May 52, 15.
Extraction of alginates from Canadian seaweeds, June 51, 15.
Feeding studies with the gum of Gracillaria confervoides and carboxymethylcellulose, May 51, 5.
Feeding tests with some algin products, Sept. 51, 1.
Fertilizer from the sea, Apr. 52, 7.
Fractionation of carrageenin, Dec. 53, 1.
Haliclonasterol and palysterol, two new natural sterols, Mar. 52, 7.
The isolation of metanethole from the sponge, Spheciospongia vesparia, Jan. 52. 11.
On jellying property of red-algae mucilages, Sept. 52, 25.
Manufacture of algal chemicals. I. Production of alginates from brown marine algae, Apr. 51, 15.
Manufacture of algal chemicals. II. Laboratory-scale isolation of mannitol from brown marine algae, Jan. 52, 11.
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Manufacture of algal chemicals. V. Laboratory-scale isolation of D-glucose from laminarin, May 53, 5.
Manufacture of algal chemicals. VI. Laboratory-scale isolation of L-fucose from brown marine algae, May 53, 11.
Medicinal uses of alginic acid and of its salts, July 52, 19.
The occurrence of δ-tocopherol in seaweed, May 53, 11.
Organic derivatives of alginic acid, Dec. 51, 7.
Physiological studies of the vitamin A content of marine algae, May 52, 3.
The properties of the algal chemicals. I. The evaluation of the common British brown marine algae as a source of alginate, Mar. 53, 19.
Sausage casing from seaweed, July 52, 5.
Seaweed extractives...find versatile uses in food, Oct. 52, 7.
Seaweeds as a source of chemicals and stock feed, Mar. 52, 11.

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Studies on mechanisms of manufacturing algin (Part I). Theroretical studies on the manufacturing process of algin, Dec. 53, 1.
Studies on the preparation of agar-agar from Gracilaria confervoides (Part 5). Report on industrialization for manufacturing crude agar from Gr. conf., Apr. 53, 29.
Studies on the preparation and the utilization of alginic acid derivatives - I. The condensate of alginic acid hydrolysate and palmitic acid as an emulsifier, Mar. 53, 27.
Studies on the preparation and the utilization of alginic acid derivatives. II. The condensate of alginic acid hydrolysate and various fatty acids as an emulsifier, Jan. 53, 29.
Studies on the preparation and the utilization of alginic acid derivatives. III. The organic base salt of alginic acid as an emulsifier, Mar. 53, 27.
Wonder drugs from seaweeds, Nov. 52, 11.

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Algae as a food source, Mar. 52, 11.
Algae grown continuously in laboratory system, May 52, 25.
Algae might find indirect use as fuel, Dec. 53, 13.
Feeding of seaweed meal to lactating cows, June 53, 9.
Florida seaweeds and their commercial use, Jan. 51, 23.
The grass of the oceans, Oct. 53, 25.
Mass production possibilities seen for algaculture, Oct. 53, 25.
On the seasonal variation of chemical composition of Gracilaria confervoides, Nov. 52, 25.
A radioactive tracer method of estimating the retention time of seaweed in a rotary louvre dryer, Sept. 52, 25.
Seasonal variation in the chemical composition of the Fucaceae in the Maritime Provinces, Aug. 52, 23.
Seaweed uses advancing through research, Dec. 52, 15.
Some typical analyses of red seaweeds, Oct. 53, 11.
Studies on components of brown algae, Dec. 52, 25.
A survey of certain seaweeds of commercial importance in southwest Nova Scotia, Aug. 52, 23.
Through-circulation drying of seaweed. I. Laminaria cloustoni stipe & II. Laminaria cloustoni frond, Sept. 53, 5.
Utilization of seaweeds in industry, Nov. 51, 9.
Vitamin B_{12} in seaweed, Nov. 52, 25.

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The fish oil situation, Jan. 53, 7.
Fish and shellfish preferences of household consumers -- 1951. Part I - National summary, Sept. 52, 15.
Food and Drug rejects "Pacific perch", Jan. 51, 3.
"Hot fish for the table", May 52, 1.
How food manufacturing can benefit from food broker service, Feb. 51, 7.
Locker plants sell fish, Dec. 51, 1.
Oysters in plastic, June 51, 17.
Quality control program builds confidence, July 53, 15.
Truck service opens markets, June 51, 17.

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School business is big business, Dec. 51, 11.
School-lunch programs use more fish, Sept. 51, 5.
Use of fish in New England schools increased by demonstrations, Aug. 53, 5.

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Fillets from tropical freezership sold here, May 52, 23.
Locker plants present market opportunity, Feb. 53, 13.
Seafood a la color, Sept. 51, 13.
Seafood -- the new frontier, Sept. 52, 1.

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Alcohols from menhaden oil by sodium reduction, Mar. 51, 1.
Carolina -- the Atlantic focal point, July 51, 15.
Chemistry of menhaden, Aug. 52, 23.
Cook's tour of fish reduction, July 51, 15.
Fishing for menhaden, Jan. 51, 25.
"King" menhaden, Sept. 52, 5.
The manufacture and uses of some products from menhaden oil, Sept. 51, 15.
Menhaden industry -- past and present, Aug. 52, 5.
A westward shift in (menhaden) operations in southern waters, July 51, 15.
What happened to Carolina's menhaden?, Jan. 51, 23.

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Abalone patties -- breaded and frozen, Aug. 51, 11.
Bite-size frozen seafood, Oct. 52, 23.
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Fish flour as milk substitute, June 53, 1.
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Frozen fish in new form and tailored sizes, June 53, 17.
Imitation jumbo shrimp made from small species, fragments, Oct. 51, 17.
Lobster soup made from ground bodies, shells, Oct. 52, 17.
Ready market seen for breaded fish, Dec. 51, 9.
Rock lobster roe in fish paste, Jan. 52, 13.
Salmon croquettes, June 51, 13.
Shrimpburgers are set for national distribution, Feb. 53, 27.

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British Columbia whaling, Nov. 51, 11.
Canada's freshwater fisheries, Sept. 53, 7.
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Canadians eating more fresh fish, May 51, 17.
The chum and pink salmon fisheries of British Columbia 1917-1947, May 52, 9.
The crab fishery off Graham Island, British Columbia, to 1948, May 52, 9.
Drift-net fishing for herring, July 51, 21.
An economic review of Quebec fisheries 1950, Apr. 51, 21.
Far-reaching projects will modernize and benefit Newfoundland's salt cod fishery, Sept. 53, 21.
Fisheries by-products, Sept. 53, 21.
Manitoba's bullhead fishery, Nov. 53, 13.
New rosefish grounds in Atlantic, July 51, 21.
1950 whale catch of Labrador, June 51, 15.
Shrimp found in Newfoundland waters, Dec. 52, 13.
Strange fish that Indians used for candles now sought for food, Apr. 53, 15.
Studies of the fish of Great Slave Lake, Mar. 52, 21.
Whitefish inspection likely to expand to other species, June 51, 13.

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Alaska's shrimp industry, July 53, 9.
Expansion of the shrimp fishery in the Gulf since 1945, Feb. 52, 3.

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The John N. Cobb's shellfish explorations in certain southeastern Alaskan waters, spring 1951, Sept. 52, 1.
Maine's herring fishery, May 52, 17.
The northern shrimp fishery of Maine, July 52, 1.
Panamanian shrimp fishery, Jan. 51, 9.
Preliminary report on 1950 North Pacific albacore tuna explorations of the John N. Cobb, Apr. 51, 17.
United States problems and policy on fisheries and territorial waters, Sept. 52, 21.

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Depletion of carbohydrate reserves by starvation and exercise, Mar. 52, 17.
Motion sickness, Jan. 51, 9.
Prevention of occupational skin diseases among fishermen, Mar. 52, 7.
Statement of trichloroethylene extracted soybean meal issued, Oct. 52, 7.
Three decades of animal nutrition, Apr. 53, 21.
Treating compressed air illness, May 53, 21.
Vicious sea predator may be invaluable aid to medicine, June 52, 25.
What should an egg mash contain?, Jan. 52, 1.

Protein and amino acids

Biological value of proteins, Nov. 53, 15.
Degenerative joint disease in mice fed high-protein diets, Nov. 53, 21.
Dynamic interrelationships in amino acid nutrition, May 51, 21.
The effect of heat on the lysine and methionine in sunflower seed oil meal, Mar. 53, 27.
Effect of methionine supplementation and different protein levels on growth and feed requirements of broiler chickens, June 53, 15.
Experiments on nutrition in fish. I. Digestibility of protein in food-stuff with different nutritive values, Feb. 52, 19.
Heat treatment and protein quality, Sept. 52, 19.
Interpretation of amino acid requirement data according to the law of diminishing returns, Sept. 53, 3.
Lack of effect of amino acids on the growth retardation due to unheated soybeans, Sept. 53, 23.
Nutritional evaluation of food proteins by measuring availability of amino acids to micro-organisms. I. Cottonseed proteins, Apr. 53, 21.
The nutritive evaluation of protein: a half-century of progress, Sept. 52, 5.
Private lives of unknown growth factors, Sept. 53, 17.
Protein and amino acid requirements of mammals, Nov. 51, 21.
Some effects of processing on the nutritive properties of proteins, June 51, 5.
Soyin, a protein in raw soybeans, Nov. 53, 15.
Synthetic amino acids in feeds, Apr. 53, 21.
Vegetable versus animal foods, July 51, 3.

Vitamins and antibiotics

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Salting and drying of stockfish, Apr. 53, 3.
Studies on fish curing. Part I. The preservative effect of the dried and salted fish meat, Nov. 53, 25.
Studies of salt fish. I. Bacteria associated with the reddening of salt fish, Aug. 52, 9.

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Studies on salt fish. IV. Survival of Eberthella typhosa and Escherichia coli on salt fish, Aug. 52, 9.
Studies on salt fish. VIII. Effects of various salts on preservation, May 53, 15.
A study of factors in salting and smoking fish, Nov. 51, 17.
The survival of red halophiles in water and in brines, Apr. 53, 17.
Technological research on salted sardine and anchovy produced in Greece, Feb. 51, 17.
The value of some common disinfectants and the use of water in the destruction of red halophiles, Oct. 52, 9.
Venezuela establishes new school for fish salting, Jan. 53, 9.
The water transfer in codfish muscle immersed in sodium chloride solutions, Apr. 53, 7.

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SARDINES

British brisling and sild sardine canning, Apr. 53, 3.
Compact canning of a specialized sardine product, May 51, 19.
Continuous sardine cooker ups yield and quality, Nov. 51, 5.
Dietary fat and temperature of goldfish, Sept. 52, 7.
Fish handling and processing in Europe -- canning, Aug. 53, 5.
Norwegian sardine venture, Apr. 52, 21.
The nutritive value of marine products. IX. Proximate analysis of British Columbia canned pilchard, July 53, 19.
Pilchard canning - South Africa, Jan. 52, 7.
Portugal: fisheries review, 1949, Feb 51, 11.
Reactions of herrings, sprats and pilchards to light, Feb. 53, 17.
Report on Pacific Coast mackerel, sardine and tuna, Oct. 52, 5.
Review of the California sardine fishery, Oct. 52, 21.
South African fish products. XXXI. The composition of pilchard oil and of maasbanker oil, Jan. 51, 5.
Suction hose harvests sardines, Jan. 53, 25.
Technological research on salted sardine and anchovy produced in Greece, Feb. 51, 17.
Trawling for Bay of Fundy sardines, Sept 52, 15.

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Analysis of British Columbia ratfish, July 53, 5.
The autoxidation of shark-liver oil, Dec. 53, 19.
The basking shark: a discussion of commercial possibilities (I), Oct. 53, 19.
Liver oil properties of Philippine sharks and rays, June 51, 3.
Reduction of trimethylamine oxide in dogfish flesh, Sept. 52, 15.
Shark chaser, July 52, 15.
Studies on the formation of ammonia and trimethylamine in shark, May 52, 13.

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SHELLFISH AND CRUSTACEANS, MISCELLANEOUS

Abalone

Abalone patties -- breaded and frozen, Aug. 51, 11.
Preliminary investigation of the southeastern Alaska abalone (Haliotis kamtschatkana), Jan. 53, 21.

Clams

Breakage -- the bug-bear in clam handling, Feb. 53, 25.
Common marine bivalves of California, July 53, 23.
Hard-clam fishery of the Atlantic coast, Mar. 53, 21.
Provides for sudden steam requirement on sea clam preparation line, Mar. 52, 17.

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The relation of digging frequency to productivity of the butter clam, Saxidomus giganteus Deshayes, Aug. 52, 19.
Report on total solids and free liquid in clams, Jan. 51, 13.
Vitamin B_{12} content of soft- and hard-shell clams, Nov. 51, 13.
Vitamin B_{12} in marine invertebrates and seaweeds, Nov. 53, 17.

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Australia - a new source for lobster tails, Jan. 52, 13.
Proteins of crawfish meal and fish meal compared, Jan. 52, 19.

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Canning mussels, Apr. 52, 13.
Examination of salps, Sept. 53, 13.
Food value of the edible portion of the Indian chank, Xancus pyrum, Dec. 53, 11.
Frozen shellfish, Apr. 51, 3.
New radiological laboratory for shellfish research, Oct. 51, 21.
Non-protein amino acids in muscle and blood of marine and fresh water crustacea, Apr. 52, 9.
Shell-fish for human consumption - Part I, June 53, 7.
Shell-fish for human consumption. Part II, July 53, 17.
Studies on the method of gathering shell-meats from shell-fish. Part I. Fundamental studies on the chemical shucking -- I, June 53, 21.
Studies on the method of gathering shell-meats from shell-fish. Part II. Fundamental studies on the chemical shucking -- II, June 53, 21.
Studies on the vitamin B_{12} of aquatic animals -- III. The vitamin B_{12} content of shell fish, Dec. 53, 27.

Scallops

Digby scallops, Nov. 51, 19.
Fishing for the sea scallop, Mar. 51, 25.
Modern scallop production, Dec. 52, 13.
Modificiation of drags to protect small scallops, Sept. 52, 17.
Scallops are valuable Maine resource, Jan. 51, 25.
Status of New England sea-scallop fishery, Oct. 53, 21.

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Frozen shrimp

The case of refrigerated boats, May 53, 23.
Causes of loss in weight of frozen packaged shrimp, Aug. 53, 3.
Factory ships freeze shrimps at sea, Oct. 51, 13.
Freezing shrimp at sea, Nov. 52, 11.
Government inspection of frozen shrimp, Mar. 52, 19.
Meat content varies in frozen shrimp packages, Jan. 53, 17.
Packaging tests of glazed and unglazed shrimp, Mar. 53, 17.
Quick freezes and cartons shrimp at sea, Aug. 53, 5.

Gear

Increasing the spread of shrimp trawls, Dec. 52, 17.
The gear development program of the M-V Oregon, Jan. 53, 1.
Releasing small fish and shrimp from trawl nets, Jan. 51, 1.

Processing and equipment

Commercial shrimps of the Pacific, Jan. 53, 23.
Compact prawn grader, Aug. 51, 21.
To dehydrate cooked shrimp, Nov. 52, 19.
How a California firm markets nine million pounds of shrimp, Apr. 51, 5.
A new factory ship for shrimping, June 52, 1.
A new shrimp grading machine, June 52, 3.
Packed in glass, Apr. 52, 13.
Patent filed on keeping shrimp, Oct. 52, 11.
Recovery and palatability of different species of shrimp after cooking, Mar. 53, 17.
Refrigerated sea water preserves shrimp in Florida experiments, June 52, 19.
Seafood packer uses individual dip method, Aug. 51, 1.
Shrimp processing, Apr. 52, 15.
Vein-removed shrimp, June 52, 9.

Shrimp industry

Alaska's shrimp industry, July 53, 9.
The appearance of a new commercial shrimp in a newly developed shrimp fishery, July 53, 1.
Australian prawning, Jan. 53, 19.
The commercial shrimps of British Columbia, May 51, 9.
Expansion of the shrimp fishery in the Gulf since 1945, Feb. 52, 3.
Exploratory shrimp fishing in the Gulf of Mexico, 1950-1951 (progress report), Nov. 52, 9.
The John N. Cobb's shellfish explorations in certain southeastern Alaskan waters, spring 1951, Sept. 52, 1.
New red shrimp, Jan. 52, 23.
The northern shrimp fishery of Maine, July 52, 1.
Panamanian shrimp fishery, Jan. 51, 9.
Prawn fishing in Malaya, Dec. 53, 15.
Problems in handling fresh and frozen shrimp, Jan. 51, 5.
Shellfish explorations in certain southeastern Alaskan waters by the John N. Cobb, spring 1952, Nov. 53, 23.
Shrimp cannery, modern version, Nov. 51, 17.
Shrimp found in Newfoundland waters, Dec. 52, 13.
The shrimp industry, Nov. 52, 19.
Texas experimenting with new way of preserving shrimp, Mar. 52, 23.
What the Shrimp Association of the Americas is doing to promote quality control, Aug. 52, 7.

Special products

And now it's shrimp drive-ins, Apr. 53, 23.
Imitation jumbo shrimp made from small species, fragments, Oct. 51, 17.
Shrimpburgers are set for national distribution, Feb. 53, 27.
Smoked and barbecued shrimp, Feb. 53, 9.

Spoilage and its detection

The bacteriology of Gulf Coast shrimp. IV. Bacteriological, chemical and organoleptic change with ice storage, June 52, 17.
Bacteriological studies on shrimp, Feb. 53, 13.
Black shrimp and black spotted shrimp, May 51, 11.
Crystals in canned shrimp, Mar. 53, 23.
Detecting decomposition in shrimp and oysters, Sept. 51, 9.
The indole test for shrimp, July 52, 13.
Microbiological examination of shrimp, June 53 11.
The non-microbial nature of the black spots on ice-packed shrimp, Sept. 52, 13.
The nutritive value of marine products. XV. Proximate analyses of canned British Columbia crabs, shrimps and clams, Aug. 52, 11.
The refrigeration of Gulf shrimp -- cause, prevention of black spot, June 51, 3.
Studies on black-spotted shrimp, Jan. 53, 5.

SMOKED FISH

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Bacteriology of light salted fish: sliming, July 53, 17.
Chemistry of wood smoke, May 52, 17.
The chemistry of wood smoke, Jan. 53, 7.
Factors affecting deposition of smoke constitutents on fish, Sept. 51, 3.
Fish handling and processing in Europe -- smoking, May 53, 19.
Fish handling and processing in U. K. -- smoking, Feb. 53, 15.
The freezing of kippers, June 51, 1.
Hot smoking of herring, July 51, 9.
Improved meat smoking reported with propane, Mar. 51, 15.
Kippered fresh and frozen meats, June 51, 11.
Kippered fresh and frozen meats, June 51, 23.
Many like them smoked, Feb. 52, 13.
Marine Products of Commerce (second edition), July 51, 17.
Methods of herring preservation, Jan. 53, 3.
New taste treat in smoked fish from Saskatchewan waters, Mar. 52, 5.
Preparing kippered meats for canning or freezing, Oct. 51, 7.
Preservation experiment of the smoked shark fillet. I. Relation between the days needed to show decayed appearance and the temperature stored, Jan. 53, 27.
Preservation experiment of smoked shark fillet. II. Change of oil components, Jan. 53, 29.
The production of smoked salmon, Mar. 53, 23.
Quick chilling of smoked bellies, Mar. 51, 23.
The quick-freezing of kippers, Jan. 51, 7.
Quick kippering of fish, Mar. 51, 7.
Smoke curing and drying, Dec. 53, 7.
Smoke-curing of fish, Aug. 52, 23.
Smoked and barbecued shrimp, Feb. 53, 9.
Smoked seafood, Dec. 51, 9.
Smoking oysters is a "craft", Nov. 51, 9.
Studies on the manufacture of conservative marine food products. VII. The amount of formaldehyde permeating into the fish muscle by liquid smoking and the preservative effects, Jan. 53, 27.
A study of factors in salting and smoking fish, Nov. 51, 17.

Smokehouses and other equipment

A plan for controlling the smokehouse fire hazard, Oct. 52, 13.
Speedy electronic smoking process used in West Coast fish plant, June 52, 17.
The Torry fish smoking kiln, Dec. 52, 5.

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Shrimp boats landing at Ecuadoran ports, July 52, 15.
Venezuela establishes new school for fish salting, Jan. 53, 9.

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SPOILAGE (see also FRESHNESS OF FISH; FROZEN FISH, CHANGES DURING FREEZING AND STORAGE)

SPOILAGE

Bacterial spoilage of fresh fish

Antibiotics in mink feed, Feb. 53, 5.
Bacterial fish spoilage and its control, Mar. 51, 11.

Bacteriology of fish, Jan. 53, 11.
The bacteriology of Gulf Coast shrimp. IV. Bacteriological, chemical, and organoleptic changes with ice storage June 52, 17.
Bacteriological studies on shrimp, Feb. 53, 13.
Bacteriostatic action of hydroxylamine, Aug. 51, 19.
Biochemical change of meat in newly caught fish. I. On the postmortem change of skeletal muscle in bottom fish, Apr. 52, 5.
Biochemical studies on the urea in the muscle of elasmobranchiate fish. I. Speciality and mechanism of development of ammonia in the shark muscle. II. The increase and decrease of urease in the shark muscle, Aug. 53, 21.
Black shrimp and black spotted shrimp, May 51, 11.
"Chalky" halibut, II, Feb. 52, 3.
Chemical studies on the freshness of whale meat, III., Feb. 52, 5.
Chemical studies on putrefaction of fish muscle. I. Decomposition products of fish muscle under aerobic conditions, June 53, 7.
Chemical study on putrefaction of fish muscle. II. Influence of putrefying conditions on the decomposition products, Jan. 53, 23.
Contaminated ice in the boats at sea, July 53, 11.
The determination of the degree of freshness of fish, Sept. 53, 9.
The effect of fasting on the bacterial flora of the intestine of fish, July 53, 9.
The effect of storage on indicator organisms in shucked oysters and a comparison of methods for the determination of enterococci, Feb. 52, 7.
The effect of subtilin and heat in preventing spoilage of comminuted beef, July 51, 11.
Enzymic reduction of trimethylamine oxide, Sept. 53, 7.
Fishing gear preservatives for Philippine waters, June 51, 3.
The flora of Arctic cod, Mar. 53, 3.
Histological changes in the muscle of freshwater fish during storage, Aug. 53, 15.
Hygiene of sea fish as food, the basis of quality, Dec. 53, 3.
The importance of flavobacterium in fish spoilage, Mar. 53, 3.
The longevity of the coliform bacteria and enterococci in iced crab meat, May 53, 23.
Methode pour le dosage de l'oxyde de trimethylamine, Aug. 53, 25.
Microbiological examination of shrimp, June 53, 11.
Microorganisms from Atlantic cod, Sept. 52, 19.
Milkiness of hake, Oct. 53, 5.
Milky hake, Jan. 53, 5.
The non-microbial nature of the black spots on ice-packed shrimp, Sept. 52, 13.
On the chemical changes and the toxic properties produced by the putrefaction of sardine fish. Part I & II, Sept. 52, 21.
Postmortem changes in fish, Nov. 52, 21.
Preservation of fresh stockfish, Jan. 52, 15.
Preservation and quality of whalemeat, Mar. 53, 5.
The problem of slime in the sanitation of fish plants, Nov. 53, 7.
The production and bacteriology of whalemeat, Dec. 53, 3.
The reactions of trimethylamine oxide and urea during storage of marine elasmobranchs and teleosts, May 53, 23.
Reduction of trimethylamine oxide by bacterial enzymes, Apr. 52, 15.
Reduction of trimethylamine oxide in dogfish flesh, Sept. 52, 15.
Refrigerated sea water preserves shrimp in Florida experiments, June 52 19.
Report from the experimental plant. IV. The keeping quality of washed herring, May 53, 23.
Rise and fall of bacterial populations in fish muscle, Aug. 53, 19.
Stability of antibiotics when used in experimentally retarding fish spoilage, Apr. 53, 17.
Studies on black-spotted shrimp, Jan. 53, 5.
Studies of fish spoilage. VII. Dimethylamine production in the spoilage of cod muscle press juice, Aug. 53, 17.
Studies of fish spoilage. IX. Changes in buffering capacity of cod muscle press juice, Sept. 52, 17.
Studies on the putrefaction of the aquatic products. I. The mechanism and the speciality of development of ammonia in the shark muscle, Jan. 53, 23.
Studies on the putrefaction of the aquatic products. II. The variation of urease in the shark muscle, Sept. 52, 21.
Studies on the shark muscle. Part 2. Histochemical studies of shark muscle decomposition, Nov. 53, 21.

Bacterial spoilage of fresh fish (Cont'd)

Studies of some yeasts isolated from marine fish, May 51, 3.
The surface concept in measurement of fish spoilage, July 52, 19.
Trimethylamine-producing bacteria in whalemeat, Dec. 52, 19.

Bacterial spoilage of frozen and preserved fish

Bacillus as spoilage organisms in canned foods, Mar. 52, 21.
Bacteriological investigation of a case of red discoloration in Dutch salted summer herring, June 53, 7.
The bacteriology of frozen foods, Feb. 51, 21.
Bacteriology of light salted fish: sliming, July 53, 17.
Chilled and frozen lean fish, Apr. 51, 3.
Control of fish spoilage by icing and freezing, June 51, 1.
Effect of cooking on the bacteriologic flora of selected frozen precooked foods, Jan. 52, 3.
Effect of prolonged storage on the fate of red halophilic bacteria in contaminated salt, July 53, 13.
Frozen meat, Dec. 52, 3.
Growth of bacteria associated with food poisoning experimentally inoculated into dehydrated meat, Sept. 51, 21.
Improved medium for red halophilic bacteria from salt fish, Feb. 53, 11.
Investigation of preservation. III. Heat resistant types of bacteria in canned foods, especially in swelled cans packed with fish and vegetables, Apr. 51, 9.
Occurrence and nature of bacteria in canned beef, Nov. 53, 25.
On the autolytic and bacterial decomposition of protein in fresh and salted cod flesh, Jan. 53, 23.
"Pink yeast" isolated from oysters grows at temperature below freezing, Mar 51, 19.
Studies on salt fish. I. Bacteria associated with the reddening of salt fish, Aug. 52, 9.
Studies on salt fish. VIII. Effects of various salts on preservation, May 53, 15.
Survival of microorganisms in frozen meat, Jan. 51, 9.
The survival of red halophiles in water and in brines, Apr. 53, 17.

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The action of hydroxylamine on bacteria, Aug. 53, 13.
The action of members of the genus Achromobacter on trimethylamine oxide and related compounds, July 53, 23.
Action of nitrates and nitrites on bacteria, Oct. 53, 17.
The action of nitrites on bacteria: further experiments, Aug. 52, 13.
Amino acid utilization by selected species of Achromobacter, May 53, 21.
Animal products, whalemeat, May 52, 19.
Bacteria in marine environments, July 51, 21.
Bacteriology, Dec. 53 9.
Chemistry and advances in fish processing, Feb. 53, 15.
Chemistry of muscular contraction, Nov. 51, 23.
Effect of trimethylamine oxide on the growth of bacteria, Sept. 52, 15.
Glucose metabolism of bacteria from commercial fish, Sept 52, 13.
The growth initiation of bacteria in defrosted eggs, Aug. 51, 23.
A marine species of slow lactose fermenting bacterium, Dec. 53, 9.
The micrococci in a marine environment, Apr. 53, 13.
On a new sporozoa, Hexacapsula neothunni gen. et. sp. nov., from the muscle of yellowfin tuna, Neothunnus macropterus, Oct. 53, 13.
The physiology and biochemistry of muscle, June 52, 11.
Physiology and biochemistry of muscle, Jan. 53, 5.
Some fundamentals of bacteriology, Mar. 52, 21.

STICKWATER (see FISH MEAL, NUTRITIVE VALUE - Fish solubles; FISH MEAL AND OIL, MANUFACTURE - Fish solubles)

STORAGE (see FROZEN FISH, CHANGES DURING FREEZING AND COLD STORAGE - Cold storage; HANDLING FRESH FISH)

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TECHNOLOGY (see FOOD TECHNOLOGY)

TOXICITY (see NUTRITIONAL VALUE OF FISH AND TOXICITY)

TRANSPORTATION

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Crabs fly south in paper bags, Mar. 52, 23.
Development in fish transportation, Aug. 51, 13.
Effect of bunker ice salt concentration on temperature, Jan. 52, 5.
Fish handling and processing in Europe, May 53, 13.
A guide for the protection of your frozen, packaged fish, June 53, 13.
How to prevent damage to canned foods in transit, July 53, 25.
Ice-holding refrigeration solves operating problems of halibut-salmon-albacore vessels, Jan. 52, 3.
Improvement of quality of chilled fish. Influence of depth of stowage on quality and storage in carbon dioxide, Dec. 52, 9.
Liquids in film-lined fibre, Nov. 51, 23.
Mail order fish business, June 53, 13.
The marine transportation of perishables, Feb. 52, 23.
Mechanical refrigeration in the transportation of perishable food, June 52, 11.
New insulator makes food shipments by mail possible, July 53, 25.
Production of carbon dioxide by fish stowed in ice, Feb. 53, 19.
A survey of times and temperatures in the transportation, storage and distribution of frozen foods, Dec. 53, 7.
Transport notes, Aug. 52, 21.

Rail shipment

Canadian refrigerator car passes test, Oct. 53, 3.
Carloading hood helps frozen foods, Mar. 51, 23.
Cooling of refrigerator cars, Feb. 52, 23.
Diesel powered system cools refrigerator cars, Jan. 52, 5.
How to prevent damage to canned goods, July 52, 23.
Mechanical reefers best in test, Mar. 52, 1.
Mechanical refrigeration for railway cars, Nov. 51, 23.
Overhead bunker refrigerator cars on Canadian railways, July 51, 13.
Perishables upgraded, distribution sped with mechanical refrigeration on rails, Dec. 52, 15.
Rail transportation of perishable foodstuffs, Mar 53, 23.
Refrigerated railway cars. 1. Refrigerator cars and their use in the United States, Feb. 52, 15.
Refrigerated railway cars. 2. Handling of perishable traffic on Canadian railways, Feb. 52, 15.
Refrigerator car experiments. X. Final report on the experimental mechanical car, Aug. 51, 5.
Transporting live fish, June 53, 19.
Transport and shipping, Oct. 53, 5.
Transport and storage of perishables in Canada, Apr. 53, 17.
We stopped damage claims, July 52, 3.

Truck shipment

Cargo cooler uses dry ice to provide uniform temperatures in truck or trailer, Sept. 51, 23.
Dry ice refrigerant in truck transportation holds temperature constant throughout cargo, Jan. 52, 5.
Dry ice refrigeration for truck trailer, Nov. 53, 11.
Keeps frozen foods safely cold in transit, July 52, 23.
New frozen food shipper cuts delivery costs 35 percent, June 51, 9.
Packer attains complete icing control, Feb. 51, 19.
Refrigerated truck transport problems, July 53, 25.
Refrigeration for road transport, May 52, 1.
Truck service opens market, June 51, 17.

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TUNA

Canning

Canning "little tuna" (Euthynnus alleteratus), May 52, 17.
Fish handling and processing in Europe -- canning tuna, Aug. 53, 11.
MSG in canned tuna, Aug. 51, 13.
Tuna canning, Apr. 52, 5.
Tuna canning begins on Kauai, Aug. 51, 21.
Tuna canning "down under" on its way up, Nov. 52, 9.
West Coast corporation unveils its tuna can-packing invention, Apr. 52, 23.

Fishing methods and gear

Astoria tuna fishermen favor bleeding as quality aid, Oct. 52, 15.
Electric tuna fishing, Jan. 53, 1.
Experimental testing of fish tags on albacore in a water tunnel, Feb. 52, 13.
Exploratory fishing for the little tuna (Euthynnus alleteratus) off the Atlantic Coast of the U. S., Jan. 53, 5.
Exploratory tuna fishing in the Caroline Islands, Apr. 51, 21.
Exploratory tuna fishing in the Marshall Islands, Apr. 51, 21.
German Federal Republic catching tuna with electrified hooks, Jan. 52, 3.
How to rig tuna fishing gear, Jan. 52, 23.
The Japanese albacore fishery of the North Central Pacific, Mar 51, 3.
The Japanese long-line fishery for tunas, May 51, 13.
Japanese tuna-mothership operations in the western equatorial Pacific Ocean, Oct. 51, 21.
Locked hook used to tag albacore, Jan. 51, 3.
Making history with tuna poles in Australian seas, Mar. 51, 17.
Mid-ocean challenge, Jan. 53, 3.
North Pacific albacore tuna exploration - 1950, Aug. 52, 3.
North Pacific albacore tuna exploration - 1951, Dec. 52, 9.
Pumping live fish simplifies problem of bait handling aboard clipper, Sept. 53, 19.
Report on 1951 exploratory bluefin-tuna fishing in the Gulf of Maine. Part I - Commercial aspects of the New England bluefin-tuna fishery, Aug. 52, 19.
Skipjack juice lures tuna, Jan. 53, 15.
Tuna attraction and long-lining -- ideas on how to make them work, Oct. 53, 23.
Tuna Commission studies the bait fishes, May 53, 1.
Tuna trolling in the Line Islands in the late spring of 1950, May 51, 9.

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Australia's tuna industry, Feb. 52, 21.
Fishing conditions south of the Marshall Islands, Apr. 51, 21.
First tuna cutting valuably revealing, May 52, 13.
The growth-promoting effect of commercial strained meat and fish products investigated with infantile rats, Sept. 52, 9.
The Japanese skipjack fishery, Apr. 51, 21.
Japanese skipjack studies, Apr. 51, 21.
The Japanese tuna fishing industry (translations), May 53, 21.
Japanese tuna surveys in tropical waters, Apr. 51, 21.
The 1951 turn to tuna on Atlantic and Gulf Coast of U. S., Feb. 52, 19.
Notes from Norway, Nov. 53, 15.
Observations on the occurrence of tunas in the Eastern and Central Pacific, July 52, 21.
On the Japanese black tuna (Thunnus orientalis), Apr. 51, 21.
On a new sporozoa, Hexacapula neothunni gen. et. sp. nov., from the muscle of yellowfin tuna, Neothunnus macropterus, Oct. 53, 13.
Outlook for development of a tuna industry in the Philippines, Aug. 51, 21.
Project "offshore", coastal temperatures and tuna, Feb. 53, 25.
The relationship between tuna of different regions, Oct. 53, 19.
A report on the Cuban tuna fishery, May 53, 21.
Report on Pacific Coast mackerel, sardine and tuna, Oct. 52, 5.
Rich tuna grounds found in Pacific, Feb. 52, 9.
Some recent advances in the study of the biology and racial division of Pacific tunas, July 51, 21.

UNITED STATES FISHERIES (see NORTH AMERICAN FISHERIES - U. S. fisheries)

VESSELS, FISHING

Construction and materials

Contrasting wooden fishing vessel types (1), Sept. 52, 23.
Design and construction of a trawler's fishroom, Nov. 52, 21.
Design and operation of the smaller fishing vessels, Apr. 53, 25.
Diesel lubrication on fishing boats, Jan. 52, 23.
Economic speed and size of motor fishing vessels, Jan. 53, 25.
The fishing trawler goes modern, June 52, 21.
For dragging or long-lining, Oct. 51, 19.
Improving the design of fishing boats, Oct. 51, 21.
A new approach to fishing design, Jan. 51, 13.
New England's line trawlers, June 52, 3.
Pen construction for refrigerated fish holds, July 53, 15.
Repairing the working deck of a fishing boat, Jan. 51, 25.
Scientific design assures sanitary fish holds, Dec. 53, 15.
Steam, diesel or diesel-electric: economics of trawler propulsion, Jan. 53, 25.
Towards efficiency in fishing vessel propulsion, Aug. 52, 21.
The turbo-trochoidal propeller, Aug. 52, 17.
Use of aluminum in trawlers is advantageous, Sept. 51, 21.
Wirkkala propeller to open "new era" in fishing economy and efficiency, Oct. 51, 21.
Zinc metallizing used on steel clam boat, Nov. 53, 23.

Description of specific vessels

"Charles H. Gilbert" -- mid-ocean research specialist, Nov. 52, 21.
Description of the exploratory fishing vessel, John N. Cobb, Jan. 51, 11.
Design and construction of the American trawler, Feb. 53, 25.
European shipyard launches diesel-electric powered trawler, May 51, 17.
The freezing trawler Marbouk, June 52, 19.
A new factory ship for shrimping, June 52, 1.
New type seine boat, Mar. 51, 23.
Powerful Norwegian whalecatcher, Apr. 53, 11.
The steam oil-fired trawler Princess Elizabeth, Apr. 51, 17.
Trim "Countess" trims down in water right where the yellowfin live, Mar. 51, 23.
Tuna clipper Conte Bianco, Oct. 51, 23.

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Back to sea, May 52, 23.
Corrosion of metals, Feb. 53, 25.
Fumigating vessels with hydrocyanic gas, June 53, 21.
Gregariousness in barnacles in relation to the fouling of ships and to anti-fouling research, Nov. 53, 23.
Making fishing boats safer for the crew, Apr. 51, 17.
Marine fouling and its prevention, Apr. 53, 25.
New anti-fouling compound developed, Mar. 52, 13.
Protection against marine termites, Dec. 52, 9.
Recent growth of U. S. fishing fleet, Aug. 53, 15.
Winter upkeep on small fishing boats, Mar. 51, 23.

VITAMINS, MISCELLANEOUS

Multivitamin preparations, Dec. 51, 17.
Nature of the provitamin D of the ribbed mussel, Modiolus demissus (Dillwyn), Nov. 51, 5.
A new form of vitamin D, Sept. 53, 9.
Physiological studies on the vitamin C content of marine algae, July 52, 25.
Provitamin D_m, a new provitamin A from Modiolus demissus (Dillwyn), Nov. 51, 5.
Vitamin requirements of germ-free chicks, Dec. 51, 25.

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VITAMINS, VITAMIN A, CHEMISTRY OF

General and miscellaneous

An antivitamin A, Aug. 51, 3.
Biochemical studies on the vitamin A in fish viscera-- II. Relation between the autolysis of liver and the vitamin A potency of oil, Dec. 53, 23.
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Cis-trans isomers of vitamin A and retinene in vision, Apr. 52, 23.
The equilibrium between vitamin A alcohol and aldehyde in the presence of alcohol dehydrogenase, Sept. 51, 23.
A micro method for separating free and esterified vitamin A, Feb. 51, 5.
Neovitamin A, Jan. 52, 9.
Progress in vitamin A research, Apr. 51, 19.
Reactions of activated glycerol dichlorohydrin with vitamin A, Feb. 51, 11.
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Phenolic antioxidants for carotene, June 51, 23.
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Stability of carotene and vitamin A in dry mixtures, Sept. 51, 9.
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The effect of carrier on the relative utilization of different forms of vitamin A by the chick, July 52, 25.
Effects of different amounts of lutein, squalene, phytol, and related substances on the utilization of carotene and vitamin A for storage and growth in the rat, June 51, 15.
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Hydrolysis and esterification of vitamin A during absorption, Feb. 51, 23.
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Influence of some associated factors on the results of vitamin A bioassay, Sept. 51, 7.
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Some factors which affect utilization of vitamin A, Sept. 52, 23.

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Toxic effect of excess vitamin A, Jan. 52, 9.
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Vitamin A utilization study. IV. Relative utilization of vitamin A alcohol, vitamin A acetate and vitamin A natural esters as affected by variations in dosage level, quantity and character of diluent, and quantity of dietary fat, Apr. 51, 19.

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The action of fish tissue on thiamine. II. Identification of the pyrimidine moiety of icthiamin, July 52, 25.
Action of pyrithiamine, Apr. 52, 23.
The activation by vitamin D of the phosphorylation of thiamin, Sept. 52, 5.
B-complex vitamins in meat. IV. Influence of storage time and temperature on the vitamins in pork roasts, June 52, 13.
Biosynthesis and energy transport by enzymic reduction of "onium" salts, Sept. 53, 3.
The B-vitamins of cod and haddock, Aug. 53, 1.
A chemical evaluation of tuna liver and beef-liver meals prepared by different methods, Mar. 51, 9.
The citrovorum factor, Nov. 51, 13.
Dietary interrelationships: II. The metabolism of methyl compounds, Oct. 51, 23.
The effect of antibiotics on the growth of chicks deprived of vitamins of the B complex, Feb. 52, 25.
The effect of aureomycin and vitamins on the growth rate of chicks, Feb. 52, 25.
The effect of drying temperatures on the folic acid content of herring meal, Nov. 52, 17.
Effects of certain antibiotics on the growth of rats fed diets limiting in thiamine, riboflavin, or pantothenic acid, Jan. 52, 25.
Enzymatic synthesis of folic acid by the action of carp thiaminase, July 51, 7.
The influence of folic acid on methionine metabolism, Sept. 51, 23.
The Leuconostoc citrovorum factor, Dec. 51, 3.
Liver meal as a riboflavin supplement for breeding hens, Dec. 51, 3.
Loss of B-vitamins during the production of meal, Apr. 53, 5.
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Mode of action of thiaminase, Feb. 53, 19.
Observations on a relationship between vitamin B_{12}, folic acid and the citrovorum factor, Sept. 51, 23.
Plant thiaminases, June 52, 5.
Thiaminase in aquatic animals of Nova Scotia, Aug. 53, 17.
The value of whale-liver meal and whale meat meal as sources of the vitamin B-complex in the ration of farm animals, Oct. 52, 11.
Vitamin requirements of swine during growth, reproduction, and lactation, Mar. 51, 21.

VITAMINS, VITAMIN B_{12} AND PROTEIN UTILIZATION FACTOR(S)

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Animal protein factor (APF) and vitamin B_{12} in marine products. I. Aquatic animals, Nov. 53, 17.
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Microbiological formation of vitamin B_{12} in fishery waste materials, July 51, 13.
Microbiological formation of vitamin B_{12}. I. Production in fish press liquid, Dec. 51, 3.
Microbiological synthesis of vitamin B_{12} by propionic acid bacteria, Feb. 53, 7.
New process for vitamin B_{12}, June 52, 25.
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Studies on the production of vitamin B_{12}-active substances by micro-organisms, Dec. 51, 25.
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B_{12} symposium emphasizes need for more research in the field, July 51, 17.
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Cornell opposes use of built up litter for starting baby chicks, Feb. 52, 25.
The determination of vitamin B_{12} activity in human serum, Apr. 53, 9.
Determination of vitamin B_{12} in animal tissues, July 51, 13.
Formation of a competitive antagonist of vitamin B_{12} by oxidation, Oct. 51, 23.
Influence of APF and aureomycin on the growth of dairy calves, Mar. 51, 21.
An intestinal inhibitor of vitamin B_{12}, Feb. 51, 23.
Latest nutritional developments covered at Texas conference, Feb. 51, 25.
Liver has ability to store vitamin B_{12}, July 52, 25.
New animal nutrition developments, Aug. 51, 25.
A new growth promoting factor, Dec. 52, 13.
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A note on the microbiological assay for vitamin B_{12}, June 51, 1.
The nutritive value of fish meal and condensed fish solubles. VI. An unidentified growth factor(s) in fish meal, Apr. 53, 9.
Pharmaceutical aspects of vitamin B_{12}, June 53, 25.
The present status of competition from B_{12} and antibiotic supplements, May 51, 3.
Private lives of unknown growth factors, Sept. 53, 17.
Properties of the methanol soluble factor required by mink, Feb. 51, 11.
Some nutritional developments of 1950, Sept. 51, 15.
Stability of vitamin B_{12} and B_{12b}, May 52, 15.
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Use of mycobacterium carotinogen in studies on liver extracts, Dec. 53, 25.
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Vitamin B_{12} antagonists, Apr. 52, 23.
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B_{12} now cyanocobalamin, Jan. 52, 25.
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Significance of vitamin B_{12} and related factors, Feb. 51, 15.
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The effect of vitamin B_{12} on the biosynthesis of choline methyl groups in the rat, July 52, 25.

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Studies on the antianemic ingredient of liver. IV. On a liver component effective to fortify the tolerant capacity for the high altitude, Nov. 53, 27.

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Action of vitamin B_{12} in counteracting glycine toxicity in the chick, Feb. 51, 23.
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A chick growth factor found in leafy green vegetation, Oct. 51, 23.
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Effect of vitamin B_{12} intake of hens upon carry-over in chicks, Feb. 53, 29.
The effects of vitamin B_{12} and thyroprotein on egg production, egg weight, shell quality and hatchability, Sept. 52, 23.
The efficacy of different APF concentrates for chicks, Feb. 51, 23.
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An evaluation of condensed whale solubles as a supplement in poultry nutrition, Sept. 51, 1.
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Maryland poultry conference, June 53, 15.
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Probable identity of unidentified chick growth factors in fish solubles and penicillin mycelium residue, Aug. 53, 1.
Providing vitamin B_{12}, antibiotic and unknown growth factor activity for chick diets, Mar. 53, 27.
A relationship between antibiotics, vitamin B_{12} and choline and methionine in chick growth, Jan. 52, 9.
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Studies on the fractionation of an unidentified growth factor required by chicks and poults, Feb. 53, 27.
Unidentified factors in byproducts of fish required for chick growth, Mar. 53, 19.
Unidentified growth factors in poultry nutrition, Mar. 52, 19.
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Vitamin B_{12} content of chick tissues as influenced by diet, May 51, 17.
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Vitamin B_{12} in the nutrition of the laying hen, Nov. 52, 23.
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What should an egg mash contain?, Jan. 52, 1.

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A comparison of aureomycin, streptomycin, penicillin and an aureomycin-B_{12} feed supplement for the pig, June 51, 1.
Developments in swine nutrition, Dec. 51, 5.
The effect of antibiotics and vitamin B_{12} on the growth of swine, Sept. 51, 15.

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Oil recovery from whales, Aug. 53, 7.
On the study of a whale (Ziphius cavirostris, Cuvier), Nov. 53, 19.
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Electric whaling, Sept. 52, 3.
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The component fatty acids of elephant-seal oil: variations and relationship to blubber fats of other seals, Dec. 53, 19.
The composition of the depot fats of a pig fed on a diet rich in whale oil, June 52, 15.
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Examination of some components of cephalopod and sperm-whale liver oils by the chromatographic method, Sept. 53, 13.
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Humpback oil and the milk and milk fat from the sperm whale, Dec. 53, 5.
Observations on rigor mortis in whale muscle, Oct. 53, 15.
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Studies in whale oils. On the content of saturated fatty acids in whale oils, with a note on the content of positional isomeric hexadecenoic and octadecenoic acids in partially hardened Antarctic whale oil, May 53, 25.
Studies on the whale oil. IV. Properties of oils contained in various parts of a whale body (Part 4). On the bottle-nose whale, Apr. 53, 29.
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Animal products, whalemeat, May 52, 19.
Cambridge scientists seek better utilization of whale meat, Sept. 53, 7.
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Frozen whale meat is good seller in New York, July 52, 17.
The production and bacteriology of whalemeat, Dec. 53, 3.
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Whaling prospers once again! (production of whale meat), Jan. 53, 19.

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North Atlantic seal hunt, Jan. 52, 23.
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The pothead whale industry of Newfoundland, Aug. 53, 21.
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